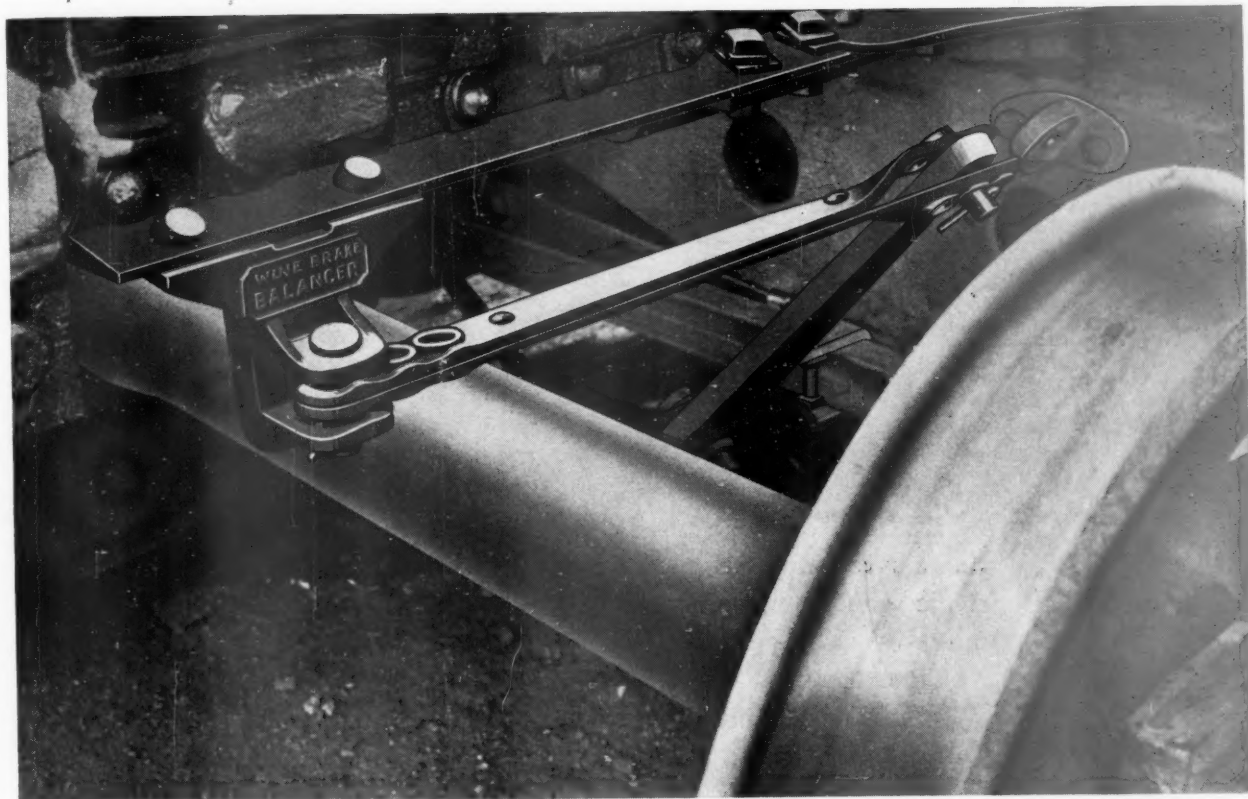


# Railway Age

*Founded in 1856*

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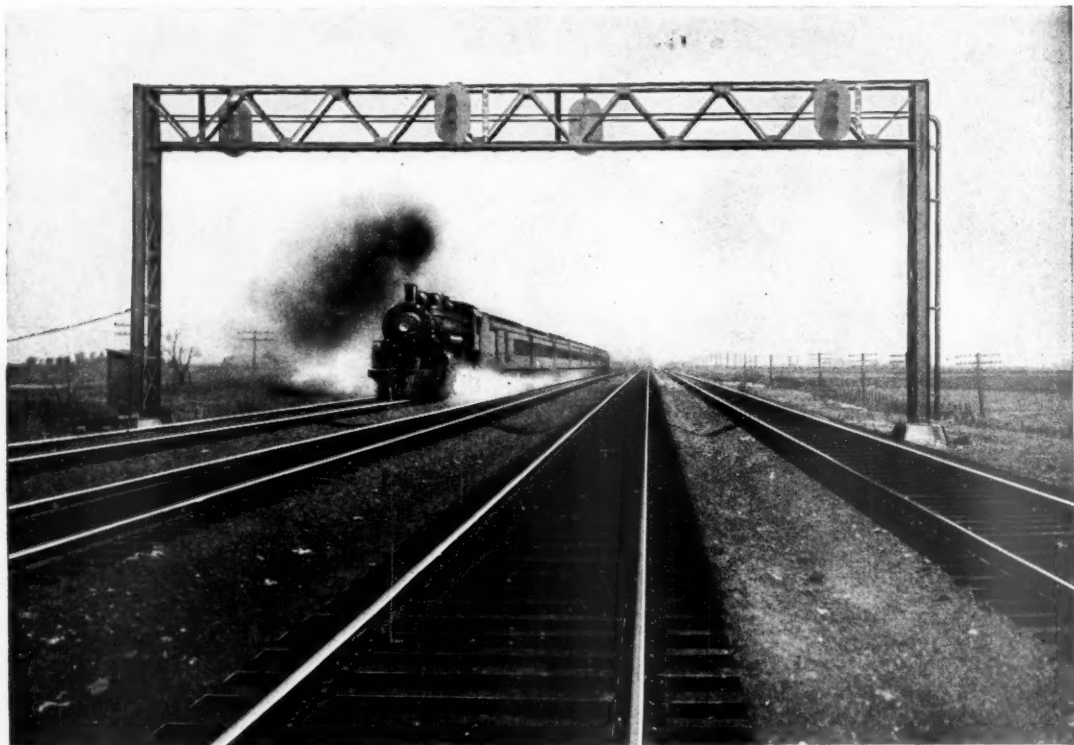


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## RAILWAY AGE

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# The Railroad Situation — a Paradox

The present situation of the railways is the most paradoxical in their history, or perhaps in the history of any industry in this country.

There is more reason now for discussion of the public problems they present than at any time within thirty years—and there is less discussion of them now than at any time within thirty years.

There always has been much discussion of them when the railways have been making any money. Their gross earnings in 1935 were 46 per cent less than in 1929; their net operating income, 61 per cent less. During the last four consecutive years the railroad industry as a whole has failed to earn its fixed charges, and it is now in the worst financial condition it ever was. Does the public possibly believe that the only time the railroad industry presents no problem is when it is broke?

There was much discussion of government ownership in the past when there was little or no danger of it. There is more danger of it now than ever before, and a bill for it is pending in Congress—and now there is almost no discussion of government ownership. Do those who are opposed to government ownership believe the only time to oppose it is when there is no danger of it?

The railroad attitudes of advocates and opponents of both the New Deal and of government ownership are equally inconsistent and paradoxical.

### Railroads, New Dealers and Anti-New Dealers

President Roosevelt is understood to be opposed to government ownership. His administration has made large loans on liberal terms to save railroads from bankruptcy. At the same time, N. R. A. and other measures and policies sponsored by his administration have caused increases in operating expenses of about \$300,000,000 a year which are helping push them toward bankruptcy and government ownership. Senator Wheeler of Montana, a New Dealer, is author of the bill for government ownership, and it is being supported by the heads of all excepting two of the railway labor unions. Meantime, the Roosevelt administration, Senator Wheeler and the railway labor unions are supporting legislation to equalize terms of competition between the railways and other carriers—one of the things most needed to help prevent government ownership.

The political and business opponents of the New Deal profess to be opposed to policies of government regulation or expenditure that interfere or compete

with private enterprise and tend to destroy it. Every such policy that they profess to oppose has been and is now being applied to the railways. It would seem, therefore, that they would find in the railroad example their best factual arguments against such policies for other industries, and would be advocating their amelioration or abolition as applied to the railways to arrest the trend toward government ownership. Some of them do hold the railroads up as a horrible example of the results of government interference. They may well do so. Do they also advocate reversal, as applied to the railroads, of the policies they oppose for other industries? But few of them do. Regarding these matters, the attitude of most of them is less favorable to the railways than that of the New Dealers.

Some of them say the railways should seek reduction of their own regulation rather than increase of the regulation of their competitors. But now, when the railways are seeking reduction of their own regulation by advocating the Pettengill bill to repeal the long-and-short-haul section of the Interstate Commerce Act, they are being opposed by competing carriers and other business interests that have been loudest in shouting that they should seek reduction of their own regulation.

### Collective Bargaining—As Long as the Labor Unions Win

And many of the same business interests that are opposing New Deal government expenditures in competition with their own industries are continuing to advocate large government expenditures on inland waterways and commercial highways in competition with the railways.

Business interests will resist and try to have declared unconstitutional the Wagner industrial disputes bill which is intended to compel collective bargaining between them and labor leaders. The railways are subject already to similar and worse labor legislation, which makes it impossible for them to secure reasonable labor costs—but no business interest is actively trying to do anything about that.

Mention of collective bargaining calls attention to another railroad paradox. Labor leaders advocate making collective bargaining compulsory in all industries. The Railway Labor Act requires it. Are the railway labor unions willing to confine themselves to it to get what they want? On the contrary, they are seeking legislation for a 30-hour week, "full crews," train limits and so on, to compel the railroads to give them what they cannot get by collective bargaining. Railway experience has shown that labor union leaders

are strong for collective bargaining—but only as long as they win by it.

### Who Will Oppose Government Ownership?

Although a bill for government ownership has been introduced, and although its adoption would advance state socialism more than any New Deal policy, it is hardly being mentioned in their public utterances by the politicians and business men who are inveighing constantly and bitterly against the "socialistic" policies of the New Deal. This is more than paradoxical and significant. It is alarming. If the railways cannot get active and effective assistance from avowed opponents of socialistic policies in opposing the trend toward government ownership, and the policies responsible for it, from what source can they hope for it?

*The trouble is, that there is at present almost no real, consistent, honest opposition in this country to socialistic policies. The railroad paradox proves it.* There is mainly merely loud outcry against particular socialistic policies that it is assumed will hurt those especially opposing them—and support by much the same interests, political and business, of every socialistic policy that they think will benefit them.

"To government ownership—or to the bow-wows, for that matter—with the railroads," say anti-New Deal politicians and business men by plain implication, "if in order to prevent government ownership we must advocate policies that might help the railroads."

And meantime they flood the country with literature urging all of us to help save the country from state socialism!

## Three Per Cent Money

The Reconstruction Finance Corporation last week sold \$30,800,000 of Pennsylvania secured 4 per cent serial bonds at a premium of \$35.47 per \$1000 bond, thereby earning a profit of \$1,092,000 for the government, since the railroad sold the bonds at par originally to the Public Works Administration. The issue matures in yearly installments of \$1,100,000. The security houses which purchased the issue have offered it to the public at prices, depending on maturity date, ranging from  $\frac{3}{4}$  per cent for next year's maturity to 3.882 per cent for the last installment, due in 1964. The average interest rate received by the public will be only slightly more than 3 per cent.

Granted that the issue is well secured (collateral behind it being almost 42 millions of mortgage bonds or guaranteed stocks of Pennsylvania leased lines) and that the company is in sound financial condition—3 per cent is still cheap money for comparatively long-term financing. The market has never been more favorable for supplying the funds for re-equipping and rejuvenating that part of the railroad industry which is solvent. Even those roads which are not solvent could probably find a way to finance at rates not out of reason such equipment acquisitions as would un-

questionably add to earnings. The question arises: Will the favorable market situation continue after a brisk demand for equipment and other capital goods actually develops, as eventually it must? The needs of the railways and the means of meeting them appear now to coincide more closely than has, perhaps, ever occurred before.

## Railways and Timber Treatment

Is the trend towards the leasing of railway-owned timber treating plants to commercial concerns detrimental to the interests of the owning roads or to the railways as a whole? This question was raised in a report issued by the Federal Co-ordinator of Transportation a few months ago, and was answered, by inference at least, in the affirmative. As the railways are today and always have been the largest users of treated timber, taking approximately two-thirds of the entire output, and as its use is resulting in savings to the railways aggregating many millions of dollars annually, this question warrants consideration.

So far as plant ownership is concerned, practice has varied widely. Such large roads as the Northern Pacific, the Santa Fe, the Burlington and the Reading-Central of New Jersey have long operated their own plants. Other large roads, like the Pennsylvania, the New York Central, and the Chesapeake & Ohio have executed long-term contracts for the treatment of their requirements with plants located on their lines. Still other roads have bought their treated timber on the open market in specific quantities or on annual contracts.

Timber treatment derives its economy from the extension of the life of the wood. As the cycle of replacement reaches the point where the last of the untreated timber is renewed, the demand declines abruptly. A plant that is built, therefore, to meet the replacement requirements of untreated timber is confronted ultimately with excess capacity. This has forced the commercial timber treating companies to seek new outlets for treated timber in highway construction, in industrial building, etc., and these newer markets have absorbed a part of the capacity released by the railways. By reason of their inability to engage in commercial activities, this avenue has been closed to the railways, and many of them have experienced a steadily declining demand on their treating plants.

Not a few of these railway plants are so located with reference to the sources of lumber supply and markets for treated materials as to permit the timber to be treated economically at these plants. Any timber that can be routed through such a plant provides traffic for the railway. Prompted by the desire to secure the routing of this commercial freight over its lines, and also by the desire to secure a return from its investment in what is now surplus plant, a number of roads have consummated contracts with commercial treating companies to operate their plants and treat

their railway requirements, leaving them free to secure such other commercial treating business as they can.

At the time when many of the railway plants were built, there may have been some justification for the feeling that it was only through this means that integrity of treatment could be assured. Since that time, however, preservatives and treating procedure have been so perfected and standardized that there need now be no concern on this score. The problem today resolves itself into one of economics. Where a road's requirements are such that it can still use the capacity of a plant, there is seldom incentive to lease it to outside parties. Where there is surplus treating capacity, however, and commercial treating business can be had, it is possible that an arrangement can be worked out that will be of advantage to all concerned. The question is not one for which there is a universal answer for all plants. No generalization is sound. Each plant constitutes an individual problem.

## Are "By-Product" Rates Undesirable?

At the recent convention of the American Economic Association in New York there was a round table conference on transport co-ordination. J. R. Turney was to have opened the discussion, but was unable to do so, and his paper was read by Dr. I. L. Sharfman of the University of Michigan. Among other things Mr. Turney paid his respects to the "by-product" theory of rate-making.

Briefly, if we understand his position correctly, it is that co-ordination of transportation involves using the most economical agency for each transportation task, and that the only way to assure that traffic will seek the most economical agency is to base rates as nearly as possible on costs. In Mr. Turney's opinion no agency of transportation should be permitted to handle any traffic as a "by-product," that is, at rates lower than total cost—because to do so might result in its attracting traffic away from another agency the total costs of which are lower than those of the first agency.

This argument is a good starting point for a theoretical appraisal of transport competition—and we ourselves have used it as such. As some of the discussion of Mr. Turney's paper showed, however—particularly that by Professors W. J. Cunningham of Harvard and D. Philip Locklin of Illinois—there are grave difficulties which stand in the way of casting aside the "by-product" theory in rate-making. There are many investments and many communities which depend upon a rate structure which leans heavily toward "what the traffic will bear." Is a nice theory to be preferred to the maintenance of the integrity of these investments and the life of these communities? Railroad rates based theoretically on costs would inevitably be heavily weighted by the mileage factor, and would tend to

break down our nation-wide economy into self-contained territorial units. Such a development would tend to reduce the length of haul and thus increase the proportion of total traffic which could—theoretically at least—be moved more economically by truck than rail.

It would also change the present relationship between railway rates on different kinds of commodities, reducing them on some that can easily bear present rates; advancing them on others more than they could bear, and excluding the latter from commerce excepting, perhaps, for very short distances.

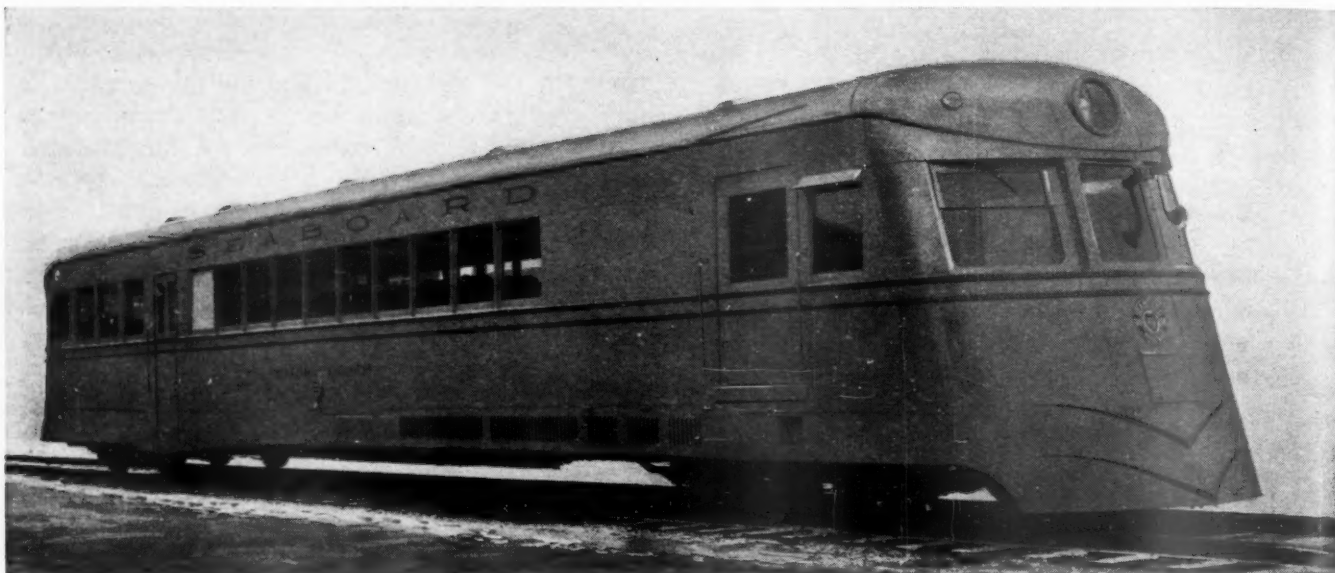
But, who knows what railroads' costs are for hauling different commodities, or hauling the same commodities different distances, or the differences between the costs of hauling the same commodities equal distances on lines of light and heavy traffic, and who knows how to ascertain these costs even approximately?

Various methods of cost finding have been proposed but all of them are necessarily based on an arbitrary assignment of joint costs which has no basis in reality. An average cost per ton-mile is, of course, obtainable for individual railroads and for the railroads as a whole, and certainly railroad rates on the average cannot be allowed to go below that average cost figure. But of what practical help is that principle in building up a freight rate structure? And who knows what truck and waterway costs are? From an economic standpoint their costs include roadway and waterway construction and maintenance costs which are not now, but which certainly ought to be, levied upon users of the facilities and reflected in the rates they charge.

The theory that each form of transport should stand, so to speak, on its own bottom and charge rates which on the average include all its costs is certainly sound. Moreover, it can and ought to be put into effect very simply by levying upon truck and waterway operators their full proportionate share of the cost of the public facilities they use, including the taxes on these facilities that they would have to pay if they owned them. But can the theory be refined in its application to the point where the rate on every single shipment by any means of transport will reflect total costs of the transport task involved, without the arbitrary assignment of joint costs to a point of complete divorce from reality? Every person who ever has really studied the question knows that to base each and every rate on total costs would be utterly impossible; and even if it were possible we should think that American industry and established communities should be considered before embarkation on a scheme of rate-making that would revolutionize the economic map of America.

The Interstate Commerce Commission has done much harm already by giving too much weight to distance in rate-making upon the false assumptions that rates should be based more on costs, and that distance is a measure of them. Rates should be made to develop and move traffic and provide total earnings adequate to covering total costs—not to fit preconceived theories that, in the main, disregard actual facts and economic conditions.





The American Car and Foundry Light-Weight Rail Car for the Seaboard

## Seaboard Air Line Places Light-Weight Motor Cars in Service

Three air-conditioned cars for single-unit operation weigh 52,000 lb. and are powered by 176-hp. engines with mechanical transmissions

**T**HREE light weight rail motor cars, designed for single-unit operation and built at the Berwick plant of the American Car and Foundry Company, were delivered to the Seaboard Air Line in the latter part of December, 1935, and the first part of January, 1936. These cars weigh 52,000 lb. in working order and, including a revenue load of 57 passengers and 5,000 lb. of baggage, weigh 65,550 lb., of which approximately 30 per cent is on the driving axle. The cars are each powered by a Hall-Scott Model 180 horizontal gasoline engine developing 176 hp. The power is transmitted to the wheels through a mechanical transmission consisting of a three-speed primary transmission, propeller shaft, and axle gears.

The overall length of the cars is 64 ft. 1 in. and the height from the rail to the top of the roof is 10 ft. 5 in. The maximum width over the side posts is 9 ft. 0 in. and the inside height from floor to ceiling is 7 ft. 0 in. The car interior is divided into three compartments, one for baggage having a length of 18 ft.  $\frac{3}{8}$  in., and two passenger compartments, one for white passengers having a length of 27 ft. and one for colored passengers, at the rear, with a length of 15 ft.  $4\frac{5}{8}$  in. The cars are of streamline design with a well rounded front and containing three large windows fitted with shatterproof plate glass. The rear end of the car is of the beaver-tail type and contains two large windows, the left-hand window being in two parts, both of which are in sliding frames to permit opening during back-up operations.

The superstructure of these cars is of steel-frame con-

struction with aluminum side sheets and letter boards, wood floors and a wood roof covered with Mulehide. The entrance vestibule is of the center type and is located between the two passenger compartments. The vestibule contains built-in step wells guarded by low steel-plate barriers which extend from the side of the car to the aisle, at which point they terminate in 1 in. pipe stanchions of aluminum color. The passenger entrance doors on each side of this vestibule are of the two-leaf folding type, swinging outward.

### Interior Arrangement and Equipment

The interior of the passenger compartment has been designed with particular regard to comfort and pleasing appearance. The seats are of the two-passenger transverse type fitted with deeply upholstered head rests. They are spaced on 2 ft. 7 in. centers and a 22-in. aisle runs the full length of the two compartments. All of the windows in the passenger compartments, except one at the rear end of the car, are stationary, thereby increasing the efficiency of the air-conditioning and heating systems. The forward passenger compartment is separated from the baggage compartment by a solid paneled steel partition having a swinging door in the center.

The lighting is provided by 12-volt circuits. The passenger compartments are illuminated by closely spaced dome lights placed on the center line of the car. Baggage racks extend the full length of both compartments. The entire floor is covered with Armstrong linoleum. In the passenger compartments the side linings below

the windows are  $\frac{1}{8}$ -in. Masonite-Presdwood, painted. The frieze panels, pier panels and upper corner panels are of sheet aluminum. The headlining is in three parallel divisions, one in the center and one on each side with a vertical offset between the center and side sheets. The center and side sections are  $\frac{1}{8}$ -in. Masonite-Presdwood and the offset is filled by vertical aluminum pressings with grilled outlets for the ventilator openings. Below the belt rail the inside lining is of Masonite-Presdwood over felt insulation. The color scheme used in both passenger compartments consists of a cream ceiling and green side walls of shades which blend to form a harmonious whole and give a light, airy appearance to the entire interior. Heat is supplied by four Kysor Model WB unit-type hot water heaters containing circulating fans. The hot water for these heaters is supplied by the engine cooling system and by a booster installed in the engine exhaust stack.

Immediately forward of this partition at the left-hand side of the baggage compartment is a cabinet containing the mechanical air-conditioning equipment consisting of a Freon receiver and the necessary evaporator coils, fans and compressor. The compressor and fans are driven by a small four-cylinder gasoline engine located at the bottom of the cabinet. The conditioned air passes to the passenger compartment through ducts built into the ceiling, and the recirculated air is returned to the evaporator through a grille in the bulkhead separating the forward passenger compartment from the baggage compartment. A screen and filter in the left-hand side of the car just forward of the bulkhead provides a fresh air intake to the air-conditioning system, so that the conditioned air is a mixture of both fresh and recirculated air. The air-conditioning system is fully automatic in operation and is controlled by a thermostat.

There are two saloons, one in the rear right-hand corner of the white passenger compartment and one in the front left-hand corner of the colored passenger compartment. The saloons are equipped with flushing type hoppers, the water for which is supplied by a pressure water tank located on the underside of the car. Giessel water coolers are supplied for each compartment, with the water cooler alcoves in the aisle face of each saloon.

The baggage compartment is equipped with two sliding type doors 3 ft. 4 in. wide, one on each side of the car in approximately the center of the compartment. These doors slide into sheet-steel door pockets. The floor of the compartment is of tongue-and-groove yellow

pine  $1\frac{5}{16}$  in. thick, laid lengthwise. The side walls are fitted with hardwood chafing strips securely fastened to the steel lining. The window directly in front of the operator is of the clear-vision type and the side window adjacent to the operator's seat is fitted with drop sash, providing better visibility during bad weather and back-up operation.

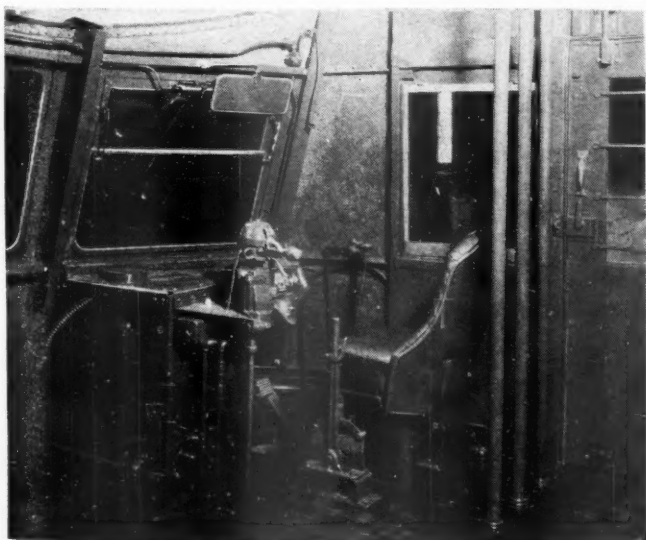
### The Power Plant

The power plant on these cars is mounted entirely beneath the floor, thereby making all the floor space, with the exception of that taken up by the air-conditioning unit, operator's station and controls, available for revenue load. The engine is a six-cylinder horizontal Hall-Scott Model 180, developing 176 hp. at 2,200 r.p.m. The engine drives through a Brown-Lipe three-speed constant-mesh transmission and a Long double-plate clutch to a flexibly mounted drive shaft which connects to the front axle of the forward truck through the axle drive gears. The drive axle is provided with two free running bevel gears meshing with a common pinion which is driven by the flexibly mounted drive shaft. One or the other of the two beveled gears may be locked to the axle by means of a large dog-type clutch mounted on a splined portion of the axle and controlled by the operator. The use of two bevel gears driven from a common pinion permits full-speed operation in either direction.

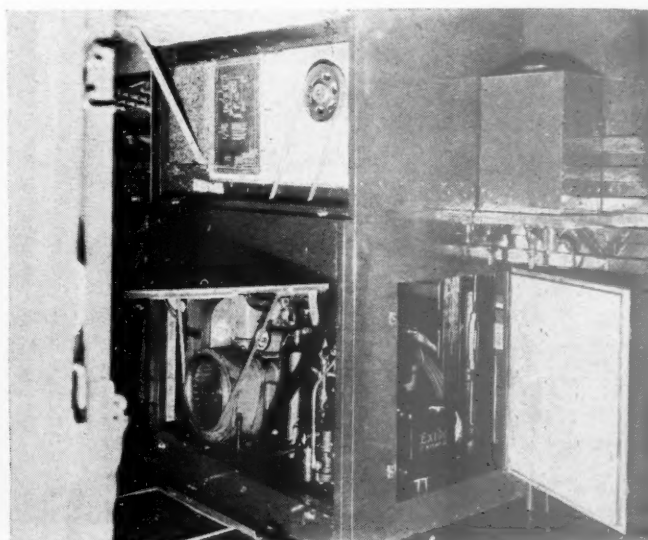
Immediately at the rear of the engine are mounted two large fin-tube radiators which are cooled by means of a fan, driven directly from the main engine. Additional cooling of these radiators is obtained by the natural draft from the motion of the car. The engine cooling-water piping system is so designed that the water may be circulated either through the main radiators or through the car heaters. When it is circulated through the car heaters, additional heat is supplied when necessary by a hot-water booster mounted on the exhaust stack of the main engine. Fuel is supplied to the main engine from a 130-gallon fuel tank which is hung from the underframe.

### Trucks and Brake Equipment

The car body is mounted on an A.C.F. Model 96-AM-2 drive truck at the front end and a Model 96-AT-2 trailing truck at the rear end. Both trucks are of 6 ft. 0 in. wheel base and all wheels are of rolled steel, 30

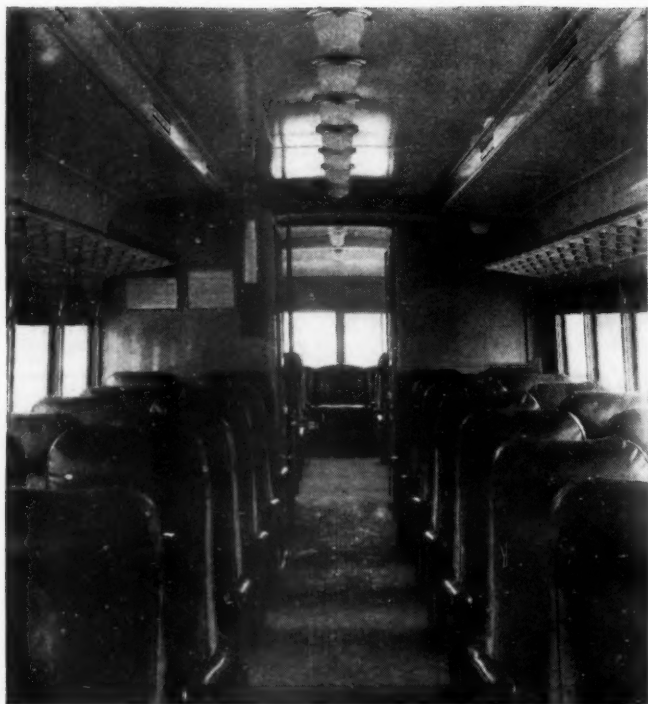


The Controls at the Operator's Station



The Air Conditioning Equipment in the Baggage Compartment



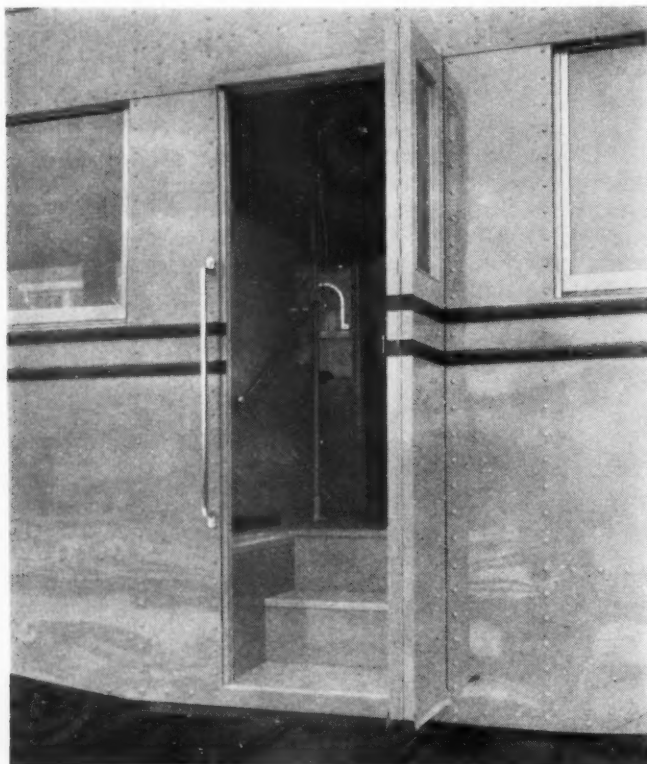


Interior of Passenger Compartments Looking Toward the Rear of the Car

in. in diameter. The brake rigging is of the outside-hung type on the drive truck and of the inside-hung type on the trailing truck.

Wear of brake shoes is taken up by a manual screw adjustment. All journals are equipped with Timken roller bearings and the journal boxes are guided in the pedestal by shear-type rubber units, thereby eliminating much of the noise otherwise caused by the motion of the boxes in the pedestals.

The air-brake equipment on this car is the Westing-



The Arrangement of the Vestibule and Doors

house semi-automatic type with mechanically driven compressor having an unloading device and with self-lapping hand-operated brake valve, with both hand and foot operated safety control. The brake cylinder for the front truck is of the body-hung type and that for the trailing truck is mounted on the truck itself.

## Freight Car Loading

WASHINGTON, D. C.

**R**EVENUE freight car loading in the week ended January 4 totaled 541,984 cars, starting the new year with an increase of 44,710 cars, or 9 per cent, over the corresponding week of last year. This was also an increase of 8.2 per cent as compared with the corresponding week of 1934. Loading of miscellaneous freight showed an increase of 17,993 cars as compared with last year and coal loading showed an increase of 18,897 cars, but merchandise and live stock showed reductions. The summary, as compiled by the Car Service Division of the Association of American Railroads, follows:

### Revenue Freight Car Loading For Week Ended Saturday, January 4

Districts	1936	1935	1934
Eastern .....	125,461	116,456	118,553
Allegheny .....	107,504	95,837	99,813
Pocahontas .....	42,530	36,672	36,229
Southern .....	79,439	76,358	73,420
Northwestern .....	62,813	56,923	58,210
Central Western .....	79,101	72,758	73,127
Southwestern .....	45,136	42,270	41,461
Total Western Districts.....	187,050	171,951	172,798
Total All Roads .....	541,984	497,274	500,813
Commodities			
Grain and Grain Products.....	25,073	22,016	23,338
Live Stock .....	11,014	13,829	15,617
Coal .....	146,374	127,477	131,336
Coke .....	9,504	6,883	7,615
Forest Products .....	21,253	16,166	14,865
Ore .....	4,735	2,449	2,813
Merchandise L.C.L. ....	124,074	126,490	134,388
Miscellaneous .....	199,957	181,964	170,841
January 4 .....	541,984	497,274	500,813
December 28 .....		466,679	425,404
December 21 .....		599,534	548,478
December 14 .....		615,237	580,202
December 7 .....		637,133	551,485

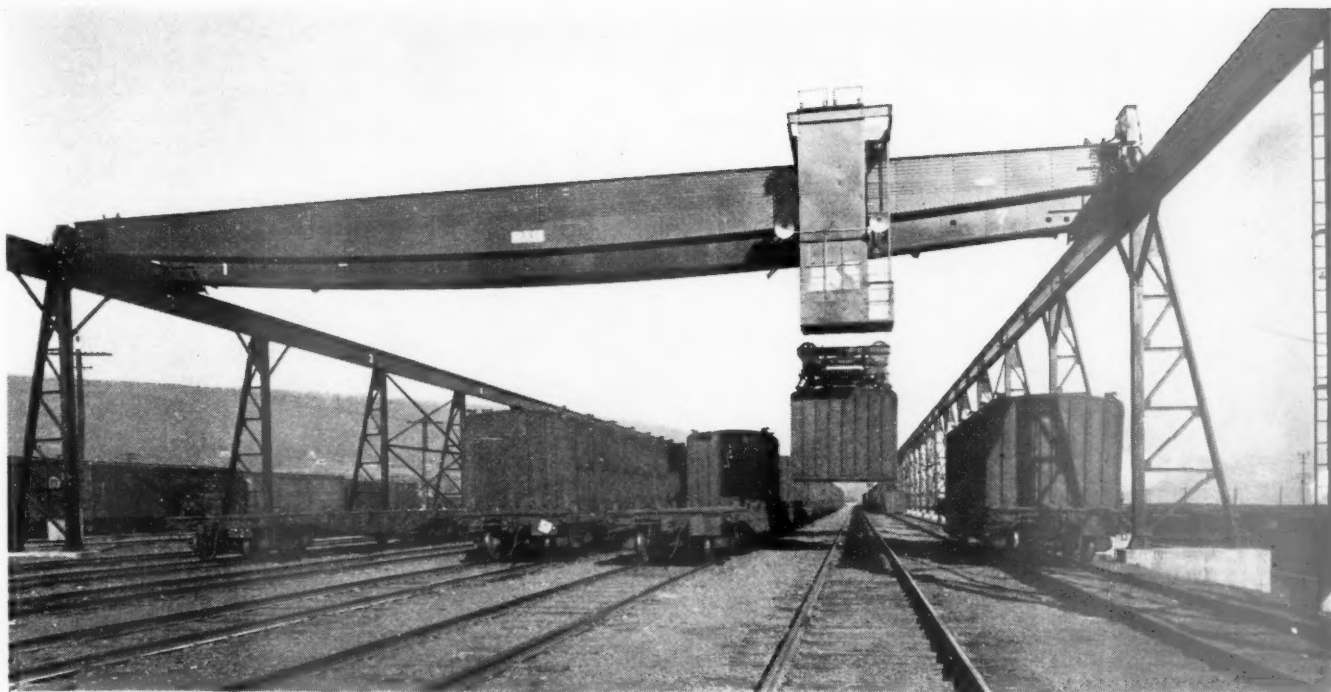
The freight car surplus on December 14 was 256,968 cars, an increase of 4,652 cars as compared with the number on November 30. The total included 148,479 box cars, 62,152 coal cars, 28,123 stock cars, and 9,010 refrigerator cars.

### Car Loading in Canada

Car loadings in Canada for the week ended January 4 totaled 34,458, or 541 more than for the first week in 1935, 4,212 cars more than for the first week in 1934, and 4,212 more than for the preceding week, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
January 4, 1936.....	34,458	20,244
December 28, 1935.....	30,246	18,694
December 21, 1935.....	41,650	23,452
January 5, 1935.....	33,917	18,542
Cumulative Totals for Canada:		
January 4, 1936.....	34,458	20,244
January 5, 1935.....	33,917	18,542
January 6, 1934.....	34,362	18,791





Enola Container Transfer, the Distinctive Feature of the Service

# The Pennsylvania's Container Plan

New l.c.l. handling method extends direct loading and expedites service—Enola transfer the distinctive feature

By R. K. Stackhouse

General Superintendent of Stations and Transfers, Pennsylvania Railroad

THE Pennsylvania's station-to-station container plan has introduced important economies into that road's l.c.l. operations while at the same time it has brought expedited and otherwise improved merchandise freight services to the many small communities involved. Permitting a much wider extension of direct loading than is possible with box cars, the container set-up allows a large volume of l.c.l. to by-pass intermediate transfer stations. The time in transit is thereby cut by about 24 hours and a saving in handling cost results.

The station-to-station container service is distinct from merchandise and bulk-freight container services and truck body services offered by the Pennsylvania to shippers under various tariffs. It involves in effect the utilization of the container as a "sectionalized box car," the employment of which for direct loading is justified by the availability of a much smaller tonnage than would justify the use of a box car. During 1934, for example, 191,228 containers were handled in the service. This traffic, if not handled to destination in containers, would have required rehandling at intermediate transfer stations at a total cost of approximately \$135,000, whereas the cost of handling at the container transfer was about 8 cents per container, or approximately \$15,300 for the 1934 container traffic. The saving was therefore approximately \$120,000. Furthermore, the utilization of the containers has permitted the continuance at many points of direct service, formerly extended by box cars,

but which the depression level of traffic would not have justified on the latter basis.

The container plan integrates into normal, usual l.c.l. operations without revamping of station facilities. Its only distinctive feature is the container transfer yard at Enola, Pa., which will be described later. The containers are 9 ft. long, 7 ft. wide and 8 ft. high with 440 cu. ft. capacity and a load limit of 12,000 lb., being of the same general size and design as those used in P.R.R. merchandise container tariff services. They are handled in batteries of five to the 40-ft. flat car, which cars are equipped with retaining blocks to secure the containers for safe carriage. These 40-ft. container cars match up at loading platforms with standard box cars, and the doors of the middle container, matching doors of box cars on adjacent tracks, serve as a passageway for platform trucks; the container doors can be opened and closed with present clearances between freight house tracks. Container loading and unloading operations at origin and destination stations are identical with those applied to box cars; the container-bearing flat cars are placed at loading platforms and at no point removed from the cars. The freight is trucked to and from containers in the same manner in which freight is handled to and from box cars at station platforms.

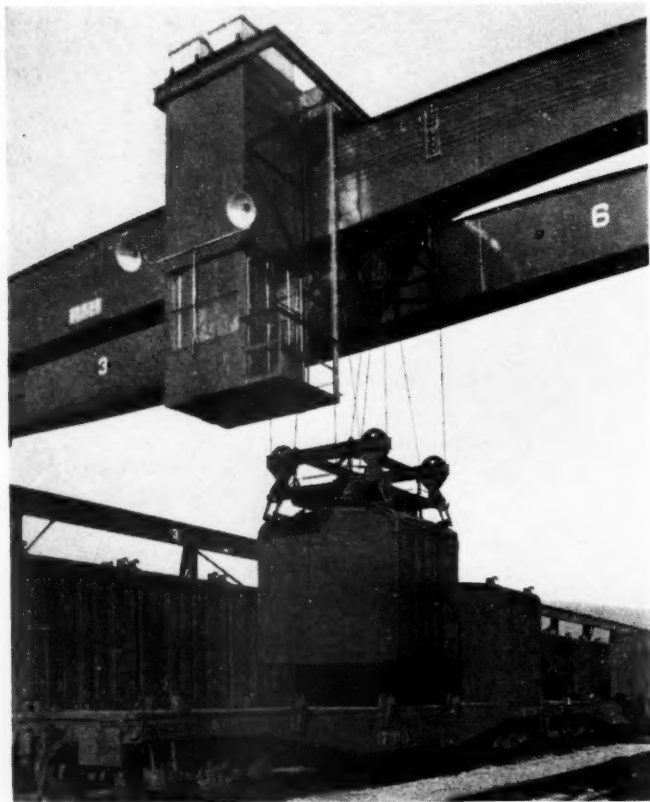
As stated in the foregoing the entire service is built up around the container transfer at Enola which is the prime factor in this new freight-handling method. This



Freight Is Trucked to and from Containers in the Same Manner in which It Is Handled to and from Box Cars at Station Platforms

facility, which was placed in service in November, 1932, consists of two overhead cranes on a 900 ft. runway spanning seven tracks. Each track has 21 car-spot points and thus a total of 147 container cars may be worked in the transfer yard at one time. All container cars operating on the Pennsylvania system are dispatched through Enola where the crane, operating as a container-classification device, assembles on each outbound car five containers for a common destination.

Enola is the site of the Pennsylvania's most important classification yard in the East, all eastbound and westbound tonnage trains being yarded and classified at this point. The container transfer is located between the eastbound receiving and the westbound departure yard.



The Crane-Transfer Operation Is a Smoothly-Functioning One, Requiring No Troublesome or Precise Manoeuvring

Some 30 or 40 trains a day into Enola carry container cars and these latter must be handled through the container transfer in time to make outbound train connections. In other words the transfer work must be done on the terminal time of a train—40 min. is the closest connection.

For each of the three eight-hour shifts which the container transfer operates there is made out an eastbound and westbound car-spot assignment sheet. This is the plan for the spotting of outbound container cars, which set-up is made with inbound cars. Thus, for example, "Trenton" will be entered on the eastbound sheet opposite "311," indicating that the outbound car for Trenton, N. J., upon which all Trenton containers are to be assembled, is placed at spot 11 on track 3. In order to expedite their dispatch to the transfer, container cars are grouped on the rear end of eastbound trains and on the head end of westbound trains. As the train enters the yard for classification this places the containers at the nearest possible point to the container transfer. They are immediately cut off the train and brought by a yard locomotive to that facility while the remainder of the train is put over the hump.

#### The Container Transfer Operation

The container transfer operation can perhaps best be explained by following a container car through it. Bellefonte, Pa., for example, will load a container car with containers for Trenton, Philadelphia, Pa., Reading, Wilmington, Del., and New York. Before this car enters the container yard its ticket, listing these containers and their separate destinations, is delivered to the container transfer office by the inbound train conductor. A clerk in the container transfer office, referring to the car spot assignment sheet, enters opposite each container destination listed on this incoming-car ticket, the spot number at which the outbound cars for the five destinations are placed. This clerk, with an assistant foreman, then proceeds to that car and marks with chalk on the top of each container the car spot point to which that container must be transferred by crane for its outbound movement. Meanwhile the assistant foreman, while calling out the car-spot numbers to the clerk, has checked the container numbers on the ticket with those stenciled on the containers.

With these chalk markings, and car spot numbers painted on the crane runway, as guides, the crane oper-



ators are left to perform the transfer work with such moves as appear to them most expedient; they receive instructions only as to the cars which must be ready first. The crane-transfer operation is a simple and expeditious one. Each of the four top corners of the container is fitted with a rigid hook so designed that it engages readily with the grip of the carriage with which the crane's lift is fitted. The crane operator manoeuvres this carriage over the top of the containers to be lifted and then, by manipulating a foot pedal, drops the carriage onto the top of the container in such a way that the four grips immediately engage the container's four hooks. The container is then carried to the car spotted at the point indicated by the chalk marking on its top and there the crane-carriage grips are disengaged from the hooks. The crane carriage, designed and built at the Pennsylvania's Altoona (Pa.) shops, makes this operation a smoothly-functioning one, requiring no troublesome or precise manoeuvring. With two cranes operating, the average time required to transfer a container is one minute. At present approximately 160 cars or 800 containers a day are being handled through the transfer.

Meanwhile the clerk, having completed the marking of the containers for the guidance of the crane operator, returns to the office and, from the inbound ticket, makes the proper entries on a statement called the Daily Record of Containers Transferred. This form has spaces for entering the spot number, the car number, the destination and the numbers of the outbound containers. From this sheet a ticket to accompany each outbound car is made out with a listing of the numbers of the five containers which the car has for a common destination. Before the cars are dispatched, however, the entries on this outbound ticket are checked in the yard against the stenciled numbers on the containers. When the transfer, recording and checking operations are completed with respect to a group of outbound cars, this cut is taken by a yard locomotive and put over the hump for classification into an outbound train. In order to minimize this classification work car-spot points at the transfer are set up in the station order of outbound trains.

The force at the container transfer consists of a foreman, two assistant foremen, two clerks and four regular and one extra crane operators, the latter working part time. The eastbound trains start to come through the yard about 5:30 p.m. and are all worked by 10 p.m. Then comes a lull until the westbound trains begin coming through from 10 p.m. until midnight; these are all worked by 9 a.m. The hours of crane operators are staggered to meet this condition. Two work from midnight until 9 a.m.; one from 9 a.m. until 6 p.m.; one from 2 p.m. until 11 p.m.; and the extra man from 6 p.m. until 10 p.m. Thus there are two operators continuously on duty from 2 p.m. until 10 p.m. and from midnight until 9 a.m. The transfer facility is floodlighted with two sets of 24 lights each.

#### Service Under Continual Study

The service is under continual study as a result of which it is frequently changed to meet new conditions. An attempt is made to match the inbound and outbound loads at a particular point in order to minimize empty mileage, i.e., the ideal situation is that a station capable of receiving five loaded containers from different points of origin should be capable of loading those five with outbound freight for five destinations. The service is of course not perfectly matched in this fashion but the empty mileage has been a minor element. At present approximately 70 stations are authorized to dispatch and receive containers.

As stated above there is a more or less continual re-

vision of the list of stations at which the container service operates. There is an evolution from transfer operations to containers to box cars. Briefly, it works this way: A study will be made of freight passing through a transfer station, where it will be found that a sufficient volume to warrant the operation of a directly-loaded container is moving from one origin point to each of five destination points. The container service is installed and the expedited movement which it affords may develop traffic between two of the points involved until the available tonnage overflows the container and must be loaded into two, three or four. As the latter level is reached, and if the larger volume remains fairly constant, the use of a directly-loaded box car may be warranted.

The plan of operation, however, has not changed in any important detail from the original set-up, which was a composite of several ideas worked out quite thoroughly before the service was inaugurated. It has fulfilled all expectations by the manner in which it has brought economy and expedition into l.c.l. handling. It is generally conceded that, except where there is a specialization on certain train movements, a minimum of 24 hours is required for freight to go through an intermediate transfer station. This 24 hours is saved on freight handled in the container service.

The Pennsylvania has at present approximately 3,700 double-door containers available for this service; it has about 800 of its 40-ft. flat cars equipped to carry five containers each and 25 of its 63½ ft. flat cars equipped to carry eight containers each.

## Compensator and Snubber for Roller-Bearing Driving Boxes

ON locomotives equipped with roller-bearing driving boxes it has been found necessary to maintain a close fit between the box and the pedestal liners. A clearance of 0.010 in. at this point has been found to be good practice. Where two parallel shoes are employed and wear has increased the clearance to 0.015 in. refitting may be necessary to avoid a pound which would be highly detrimental to the refined roller-bearing.

In order to assure continuously the desired close fit between a roller-bearing driving box and the pedestal liners the Franklin Railway Supply Company, New York, has developed a modification or special design of its Automatic Compensator and Snubber as applied to the ordinary driving box with the usual crown brass. This device for ordinary driving boxes was described in the *Railway Age*, May 26, 1934, page 775.

The problem of maintaining a close fit with roller-bearing boxes is, in one way, a simpler one than with conventional boxes because of the fact that the temperature rise with roller-bearing boxes is usually not over 25 deg. F., whereas with crown-bearing boxes there is frequently such a high temperature rise that provision must be made for considerable expansion.

With the Franklin Automatic Compensator and Snubber the driving box is held between a shoe on one side and a floating parallel sided plate on the other side, this plate being backed up by a tapered compensator which is moved up or down by a spring so that the clearances are only just enough to permit the box to move up and down freely without pound. An extension

(Continued on page 152)





Westbound Loaded Trains Must be Kept Moving—View Shows Train Passing the Westbound Home Signal at B. & O. Junction

**T**HE Pittsburgh & Lake Erie has made track changes and installed new signaling facilities at two important junctions to facilitate the operation of Baltimore & Ohio passenger and freight trains through Pittsburgh, Pa., over P. & L. E. tracks from a point near New Castle Jct. to McKeesport, Pa., a distance of 59 miles.

Between New Castle Jct. and Pittsburgh, the Baltimore & Ohio line is less direct, with heavy grades in each direction. The ruling grades for which the assigned locomotives are loaded, range up to 0.6 per cent, with heavier grades on which helpers are necessary up to 1.59 per cent. From Pittsburgh eastward, the B. & O. line extends along the Monongahela river 14.8 miles to McKeesport. Another disadvantage of this line is the fact that the passenger station in Pittsburgh is about three miles from the main line, requiring train backup and wye movements which introduced considerable delay. In contrast, the Pittsburgh & Lake Erie main line from New Castle Jct. to McKeesport follows a river route on practically a water-level grade, while the Pittsburgh passenger station is located directly on the main line.

In order to reduce running time and eliminate the delays occasioned by the heavy grades, the Baltimore & Ohio arranged to operate its through freight and passenger trains over the P. & L. E. tracks between McKeesport and a point now known as B. & O. Jct. near New Castle Jct. This has permitted the B. & O. to reduce the average elapsed time for passenger trains

## P. & L. E. Installs Centralized Traffic Control

Operation of B. & O. trains over P. & L. E. in Pittsburgh area required new signaling facilities at two important junctions and on a section of intervening double track

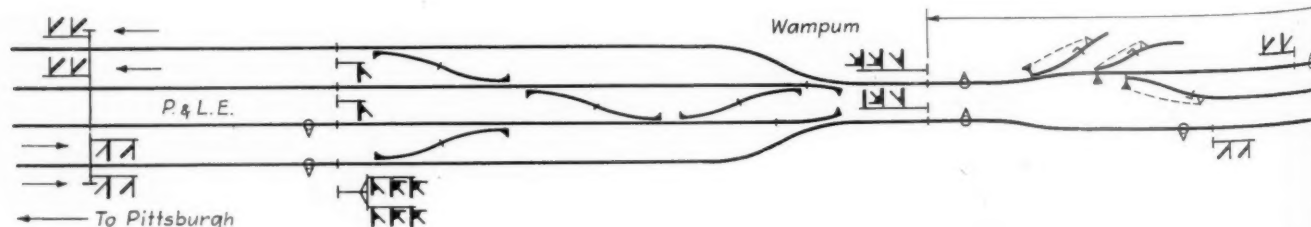
between McKeesport and New Castle 30 minutes and to make similar reductions in freight train schedules.

At McKeesport, a connection between the B. & O. and the P. & L. E. was easily arranged. However, at New Castle Jct., the westward end of the joint track, the contact was made at the east end of the B. & O. yard, at which point the B. & O. tracks are at a higher elevation than those of the P. & L. E., thus necessitating the construction of a new single-track connection about one mile long in order to provide a satisfactory grade. The new junction between this connection and the P. & L. E. tracks is now known as B. & O. Jct., being about four miles east of New Castle Jct. In addition to the junction switch, the new track layout at B. & O. Jct. includes two normally trailing-point crossovers.

The P. & L. E. line from B. & O. Jct. eastward to Wampum, 3.2 miles, is double track beyond which point the line is four track eastward to Pittsburgh. Therefore, so far as capacity to handle the additional B. & O. trains was concerned, the principal problem was between B. & O. Jct. and Wampum.

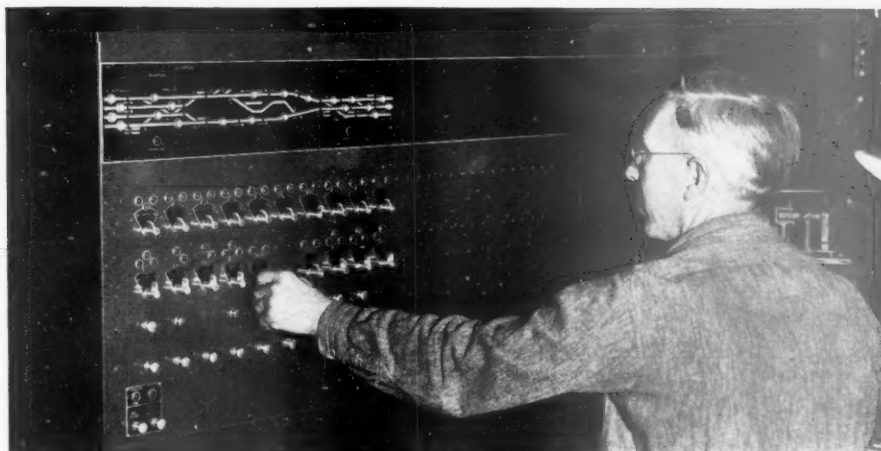
### Problem on Double-Track Section

The problem of track capacity in this territory is complicated by the fact that passenger and freight trains are interspersed and all trains must, of course, be accepted and handled without delay or stopping, if at all possible. Although the P. & L. E. line is constructed through the valley of the Beaver river, the grade gradually ascends westward at a rate of about 0.2 per cent for about 3.3 miles approaching B. & O. Jct. Furthermore, the grade on the B. & O. connecting track out of B. & O. Jct. is about 0.45 per cent for about 5,000 ft. Westbound tonnage freight trains often handle 115 loaded cars of coal, totaling about 9,500 gross tons.



Track and Signal Plan of the C. T. C. Territory

The Control Machine is Located in the P. & L. E. Office at New Castle Junction



Therefore, it is highly important that these trains be kept moving if at all consistent with safety.

The average daily traffic over this section of line now includes 18 passenger and 20 freight trains on the P. & L. E., as well as 10 passenger and 10 freight trains on the B. & O., or 58 trains daily, frequently increased to 65 or more by the operation of extra sections. In view of the problem of track capacity on the 3.2 miles of double track between B. & O. Jct. and Wampum, it was decided to provide for either-direction train operation on each of the two tracks. For this purpose, two additional crossovers were installed at Wampum in order that trains can be routed from any of the four tracks to either of the two tracks and, vice versa. The switches at Wampum had previously been handled by a mechanical interlocking, but on account of the extensive track changes, it was not practicable to reconstruct the interlocking as such. Therefore, power-operated switch machines and a new layout of color-light signals were installed.

Likewise, in order to complete the arrangement for either-direction operation, a second crossover was included in the new track layout at B. & O. Jct., this crossover being located west of the junction switch to permit two parallel train movements simultaneously. Power-operated switch machines and color-light signals were likewise installed at B. & O. Jct. The crossovers at Wampum, as well as the junction turnout and crossovers at B. & O. Jct., are No. 16, to permit diverging train movements at speeds of 30 m.p.h.

#### C. T. C. Control System

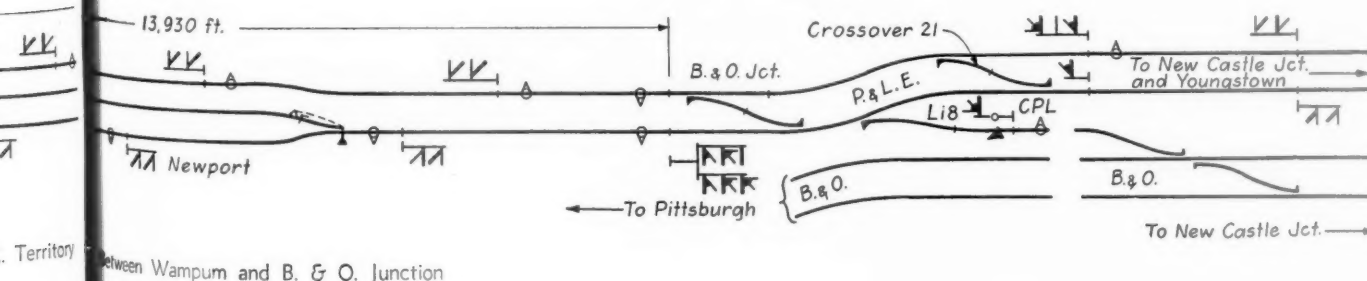
The two interlocked layouts at the ends of the jointly-operated section of double track, one at Wampum and the other at B. & O. Jct., are controlled by an installation of centralized traffic control, the control machine being located in the P. & L. E. operator's office at New Castle Jct. No change was made in the automatic block signals that had previously been in service to provide protection for train movements in the normal direction for right-hand running on the double track except that

signals were provided at Wampum and at B. & O. Jct. for directing train movements by signal indication between these points in either direction on either track, these signals being controlled by the C. T. C. system.

With the centralized control system through the Wampum-B. & O. Jct. section, and with the control in the hands of one man, train operation in the entire area can now be co-ordinated most efficiently. A few instances of special routings used to meet circumstances as they arise follow:

A westbound P. & L. E. tonnage train of 115 loaded coal cars ordinarily requires about 32 min. to go from Tower JA to New Castle Jct., 11 miles. Such a train should not be stopped in this territory. Therefore, if a westward passenger train overtakes the freight train, the usual practice is to continue the freight train on the regular westward main track, diverting the passenger train to the left-hand track between Wampum and B. & O. Jct., at which latter point the passenger train crosses back to the normal westward track, or, if it is a B. & O. passenger train, it is diverted over the connection to the B. & O. line.

Under different circumstances a westbound P. & L. E. freight may be so timed as to conflict with an eastbound B. & O. train in the vicinity of B. & O. Jct. Under such circumstances if there are no other trains the westward P. & L. E. freight train is run on the left-hand or eastward track from Wampum to B. & O. Jct., where it returns through crossover 21 to the normal westward track. During this time the eastbound B. & O. train runs left hand on the westward track from B. & O. Jct. to Wampum. Crossover 21 was provided and located to permit parallel simultaneous train movements as just explained. Again when a P. & L. E. eastbound train is to be operated at the same time that an eastbound B. & O. train is due, the P. & L. E. train is run on the normal eastward track between B. & O. Jct. and Wampum, while the B. & O. train is run on the normally westward track between these two points. These are a few of the examples of various special lineups that can be used to so route trains as to keep them



all moving. Although as many as 70 trains have been operated daily, the system of C. T. C. and the direction of train movements by signal indication without written train orders have proven to be so flexible that it is only on rare occasions that it has been necessary to stop any trains.

### C. T. C. Control Machine

The control machine in the office at New Castle Jct. has nine two-position levers in the top row, for the control of six crossovers, two single switches and one switch



The Switch Layouts Are Well Constructed

and a derail, totaling 16 switch machines. Seven three-position levers in the bottom row control 22 signal units. When a signal lever is in the center position, the corresponding signals indicate stop; when thrown to the left the eastward signal is cleared and when thrown to the right the westward signal is cleared.

Lever No. 15 is designed for traffic-direction control on the B. & O. single-track connecting line between B. & O. Jct. on the P. & L. E. and the junction with the B. & O. main line. Two levers at the bottom, No. 12 and No. 16, control electric locks on the outlying hand-thrown switches at the two ends of the center siding west of Wampum and on the two team tracks at Wampum, respectively. All levers are equipped with indication lamps to repeat the position of the switch, or indication of the signals, locks or direction of traffic established.

The illuminated track and signal diagram above the levers is equipped with lamps to show the locations of trains on all main tracks approaching or passing through the C. T. C. territory. In addition to the lamps, the approach of a train is indicated by a bell. The two-wire time-coded system of C. T. C. control is used on this installation. The operator actuates the levers for a switch and the signal, and then pushes a starting button; as soon as the functions in the field have operated, indications are returned to light the indication lamps on the machine.

The 16 electric switch machines on this installation are Style-M-22 equipped for operation on 22 volts d-c.; each machine is equipped with a point detector. As a special feature, the plates on the two ties on which the machine is mounted extend under the switch machine and the ends are turned up in such a way as to fix the position of the machine with reference to the rail. With this arrangement, a switch machine can be replaced readily and the new machine is always in exactly the right place. The signals are the Style-H-2 searchlight type except signal L18 which directs eastbound trains

from the B. & O. connection, which signal is the B. & O. standard color-position-light type.

The C. T. C. system, as well as the switch machines, signals, relays, etc., on this installation, were furnished by the Union Switch & Signal Company, the construction being handled by signal department forces of the Pittsburgh & Lake Erie.

## A Steel Rolling Grille

THE Kinnear Manufacturing Company, Columbus, Ohio, has developed a steel grille for door and window openings of warehouses and freight stations that is opened and closed in the same manner and with the same equipment as the Kinnear rolling doors. The object of this grille is to provide a reliable safeguard or impassable barrier against trespassing or burglary without sacrifice of air, light or vision.

The grille proper is composed of round steel bars connected by ornamental pressed steel links. The apertures in the grille are made small enough to prevent the admittance of a man's hand or missiles. It coils on a heavy barrel above the lintel and is locked in and travels in guides mounted on the sides of the opening. Helical springs enclosed in the barrel provide accurate counterbalance. The grille is of attractive design and can be built of various metals.

Coiling above the opening in a small space, this new grille may be installed either on the face of the wall or in reveals provided at the time the building is constructed. It may be built in practically any size, the size of the bars and links depending upon the size of



Steel Grilles Protect Tail-Board Doors in a Warehouse

the grille. It can also be operated manually, mechanically by means of a crank or operating chain, or electrically.

It is said that this new grille is readily adapted for use over warehouse doors, entrances to vaults and other storage compartments, sky-lights, gates, and other openings where reliable protection is required. The openings are also readily provided with steel interlocking slat rolling doors for closing them at night. The illustration shows a small opening in the center of the grille to permit the loading of trucks at the end of the conveyor, without allowing anyone to enter the building.



A Unique Structure—Bridge Over White Woman Creek, Near Selkirk, Colo.

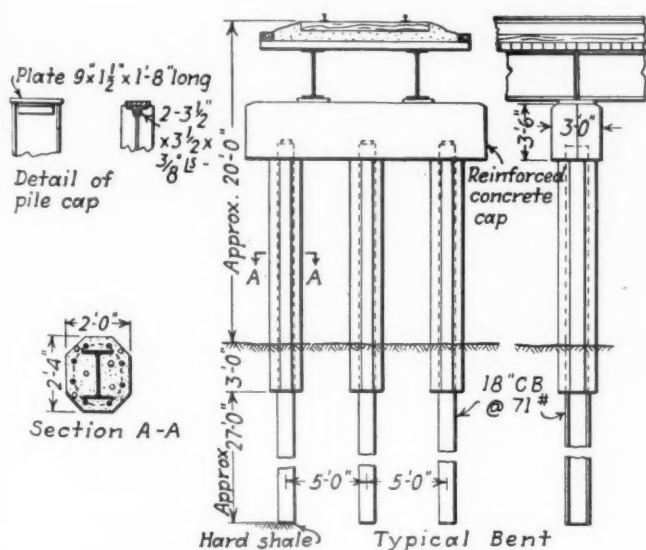
**S**TRUCTURAL steel members have been used occasionally as bearing piles for many years, but the advent of the wide-flange (CB) section has provided a type of rolled member so much better adapted for driving than any sections hitherto available, that it has given a pronounced impetus to the use of steel bearing piles. In fact, the extent of such use has been sufficient to warrant the development of a special pile shape—the CBP series, which differs from the CB sections in that the thickness of the web is made the same as that of the flanges. The cost of such piles is greater than those of either wood or concrete, but the former possess singular advantages in certain circumstances, as for example where exceedingly hard driving is encountered.

The steel piles displace only a fraction of the volume of material that must be disturbed in driving piles of solid section and they can, therefore, be driven through compacted sands, gravels or even shales in which the driving of a wood or concrete pile would require jetting if it could be accomplished at all. They have proved especially useful in locations where security against scour has demanded penetration to great depths through hard driving, but unstable material. Their application to railway structures is illustrated in three bridges built recently by the Missouri Pacific. The descriptions of these bridges demonstrate the facility with which these steel piles function both as foundation members and as component parts of the towers, piers or bents upon which the superstructure is supported.

All three of these bridges are in locations that present the hazard of deep scour, but the material encountered largely sand and gravel, imposes extreme resistance to the driving of any type of pile that involves the displacement of a relatively larger amount of material than the steel pile. While steel piles were therefore used, and in each case function as the substructure shaft as well as bearing piles, it will be observed that the details of the substructures differ widely and that a different type of superstructure was provided in each case.

One of these bridges is a 22-span structure of reinforced concrete trestle slabs, supported on 23 bents of three steel piles each with reinforced concrete caps. The bridge spans a dry river near Nepesta, Colo., where security against scour required driving through 30 to 40 ft. of sand and gravel and 10 ft. of shale to refusal on rock. The piles in this case were 18-in. 71-lb. CB sections and, in addition to the concrete caps, were encased with concrete for a depth of three feet below the ground line and for a height of four feet above. Five bents in the deepest part of the run were cross-braced by means of 10-in. 20-lb. channels welded to flanges of the piles.

A second structure of similar type, except that the superstructure consists of steel beams instead of con-



Typical Details of Steel Pile Bents Supporting Steel Beam Spans  
with Timber Ballast Floor in Bridge over Arkansas River at  
Wichita, Kan.



Photo—Courtesy Carnegie-Illinois Steel Corporation

Steel Pile Bents Support Concrete Slabs in the Bridge at Nepesta, Colo. Note Welded Cross Bracing and Encasement at Ground Level

crete slabs, was built across the Arkansas river at Wichita, Kan. Here it was necessary to drive the piles through fine sand, coarse sand and clay for depths ranging from 27 to 42 ft., and thence into shale for a penetration of 8 to 11 ft., the resistance developed ranging from 20 blows per inch to positive refusal. The three piles of each bent were provided with a concrete cap and were encased in concrete from the underside of the cap to a depth of three feet below the ground line.

The third bridge, which spans White Woman creek, three miles east of Selkirk, Colo., is of an entirely different character, consisting of a 100-ft. steel deck girder span with 70-ft. flanking spans of the same type. The substructure consists of two concrete bank blocks on concrete piles and two steel and concrete piers of a decidedly unusual design.

This waterway is normally dry, but following cloud-bursts is subject to discharges involving depths of water up to 20 ft., and scour to a distance of 56 ft. below base of rail and requiring the construction of elaborate concrete aprons to protect the sides of the channel under the bridge. Security against scour at this location demanded the driving of piles into firm shale that is normally buried under an overburden of about 40 ft. of clay, sand and gravel.

The construction of each of these piers involved the use of eight 16-in. 83-lb. CB sections driven into the shale. These piles are arranged as two bents that are encased in a concrete pier for a height of 21 ft., the bottoms of these piers being below the anticipated depth of scour and the top above the probable maximum high water level. Above the tops of the piers, the piles are provided with steel sway and tower bracing, while at the top they have steel caps that support the grillages and pedestals on which the girders are carried.

As previously stated, the steel piles were used in these three bridges because they could be driven to much greater depths in the material encountered than either wood or concrete piles. This is owing to the fact that a pile of an "H" section displaces much less material while it is being driven, than a pile having a cylindrical, square or octagonal section. Experience in driving discloses that earth cores enclosed between the flanges on the two sides of the pile are carried down with the pile, indicating that the skin friction between the earth and the pile is greater than the shear on the soil planes between the edges of the flanges. However, as the object of the use of the steel piles in these cases was to reach strata of high supporting power, the bearing value of

the piles was not a matter of concern. The sections used were selected to meet the requirements as to stiffness and strength for the conditions imposed.

The piles were driven with No. 1 Vulcan or 9 B2 McKiernan-Terry steam hammers, using heavy timber frames accurately spotted on the ground at the site of the bents to serve as guides for the accurate placing of the piles. The lengths of the piles have been determined by driving steel rails as test piles and it has been found that such tests generally afford an accurate forecast of the requirements. At the Nepesta bridge all of the piles were driven to within a foot of cutoff. At the Arkansas River bridge a few of the piles had to be driven to greater depths than had been anticipated, with the result that it was necessary to splice on additional sections as much as 12½ ft. long. These splices, which are made by bead-welding plates to both the web and flanges and filling up any open spaces between the abutting ends with weld metal, can be proportioned to develop the full bending strength of the pile if this is necessary.

To develop the capacity of these steel piles without introducing excessive bearing stresses in the concrete of the caps, it is necessary to cover the piles with steel caps. These are 1½-in. plates that are bead-welded to the web and flanges of the pile.

In cases where the piles are jacketed for some distances above and below the ground line, the concrete provides effective protection against corrosion throughout the zone where such action would be anticipated. In locations where the character of the soil is such that corrosion might occur below the level of the jacket or where no jacket is provided, the piles are given a protective treatment consisting of a heavy coat of red lead and two coats of emulsified asphalt. The last coat of asphalt is heavily dusted with dry cement or fine sand to protect against the scouring action of soils through which the pile is driven. Examination of piles below the ground line indicates that this coating is reasonably effective.

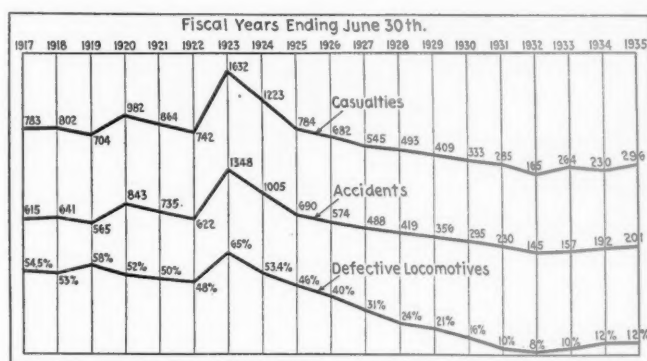
Experience in the driving of steel piles in a wide variety of materials has not been sufficiently extensive to warrant the same reliance on empirical formulas for bearing power as with wooden piles. However, considerable progress has been made in compiling driving records and load tests of steel piles, and these data together with those obtained in a thorough investigation at the site of the structure should enable a competent engineer to determine the safe bearing load under any local conditions imposed.

# Increase in Number of Locomotive Accidents and Defects

Twenty-fourth annual report of the Bureau of Locomotive Inspection shows 12 per cent of locomotives inspected found defective with an increase of 29 per cent in casualties

THE Bureau of Locomotive Inspection in its twenty-fourth annual report submitted by A. G. Pack, chief inspector of the Bureau, to the Interstate Commerce Commission, which covers the year ended June 30, 1935, shows an increase in the number of locomotives found defective on inspection, although the percentage of defective locomotives remained practically the same. There was also an increase in the number of defects and number of accidents, while the number killed was considerably greater than for many years.

During the nine-year period from June 30, 1923, to June 30, 1932, the number of locomotives found defective and the number of accidents resulting from such defective conditions showed a steady and gratifying decline in numbers. The 1933 report, however, showed a change in the trend—the percentage of locomotives



Relation of Defective Steam Locomotives to Accidents and Casualties Resulting from Locomotive Failures

## Accidents and Casualties Caused by Failure of Some Part of the Steam Locomotive, Including Boiler or Tender

	Year ended June 30					
	1930	1931	1932	1933	1934	1935
Number of accidents.....	295	230	145	157	192	201
Per cent increase or decrease from previous year .....	17.1	22	36.9	8.3*	22.3*	4.7*
Number of persons killed..	13	16	9	8	7	29
Per cent increase or decrease from previous year .....	31.6	23*	43.7	11.1	12.5	315.3*
Number of persons injured	320	269	156	256	223	267
Per cent increase or decrease from previous year .....	17.9	15.9	42	64.1*	12.9	19.7*

\* Increase.

found defective, as compared with the 1932 report, increased from 8 to 10 per cent, while the number of accidents increased from 145 to 157. The 1934 report showed 12 percent of the locomotives inspected to be defective and the number of accidents 192.

During the fiscal year ended June 30, 1935, the number of steam locomotives inspected totaled 94,151 of which 11,071 or 12 per cent, were found defective and 921 were ordered out of service. In the previous year 89,716 locomotives were inspected, of which 10,713 were found defective and 754 were ordered out of service. In the year ended June 30, 1932, a total of 96,924 locomotives were inspected, of which only 7,724 were found defective and 527 were ordered out of service. The total number of defects shown in the last four reports were 27,832 in 1932, 32,733 in 1933, 43,271 in 1934 and 44,491 in 1935. The number of accidents was 145 in 1932, 157 in 1933, 192 in 1934 and 201 in 1935. The records for number of persons injured were 156 in 1932, 256 in 1933, 223 in 1934, and 267 in 1935. The number of persons killed, which for the previous three years had been only nine, eight and seven respectively increased to 29 in the year covered by the current report.

The number of locomotives which it was found necessary to order out of service due to being immediately

## Steam Locomotive Accidents—Number of Casualties Classified According to Occupation

	Year Ended June 30											
	1930		1931		1932		1933		1934		1935	
Members of train crews:	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Engineers .....	4	100	5	73	3	59	2	58	1	57	7	65
Firemen .....	4	123	5	75	4	49	1	48	1	73	4	70
Brakemen .....	4	32	..	39	2	18	..	17	1	32	2	26
Conductors .....	..	10	..	21	..	7	..	10	1	17	..	10
Switchmen .....	..	10	..	8	..	3	..	8	..	6	..	3
Enginehouse and shop employees:												
Boilermakers .....	..	1	..	3	..	1	..	1	..	2	..	6
Machinists .....	..	3	..	4	..	1	..	2	..	5	..	3
Foremen .....	..	1	..	3	..	..	..	..	..	..	..	2
Inspectors .....	..	3	..	..	..	..	..	1	..	3	..	1
Watchmen .....	..	2	..	5	..	1	..	3	1	4	1	1
Boiler washers .....	..	2	..	..	..	..	..	1	..	..	..	..
Hostlers .....	..	3	..	4	..	5	..	..	1	5	..	3
Other enginehouse and shop employees.....	1	8	2	6	..	4	..	3	..	1	..	6
Other employees .....	..	6	..	6	..	2	..	2	1	4	14	49
Nonemployees .....	..	16	1	22	..	6	3	102	..	14	..	22
Total .....	13	320	16	269	9	156	8	256	7	223	29	267





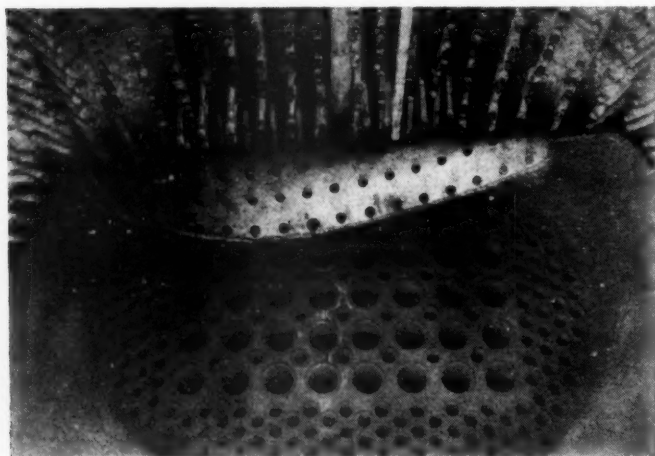
Side Rod Knuckle Jaw Broken as a Result of Cracks Caused by Fusion Welding to Restore Pin Fit

unsafe fell to the low figure of 527 in the year ended June 30, 1932. In 1933 this increased to 544, in 1934 to 754 and in 1935 to 921.

Accompanying tables show a comparison of the accidents and casualties during a six-year period and the occupation of those killed or injured. Comparing 1935 with 1934 it will be noted that there was an increase of 4.7 per cent in the number of accidents, 19.7 per cent increase in the number injured and more than three times the number of persons killed.

#### Boiler Explosions

Boiler explosions or crown-sheet failures continue to be the most prolific source of fatal accidents. There was an increase of four accidents, an increase of 17 in the number of persons killed and of 39 in the number injured from this cause as compared with the previous year. Compared with the fiscal year ended June 30, 1912, the first year the Boiler Inspection Act was oper-



Crown-Sheet Failure Resulting from Low Water—Water Cage Fittings Badly Obstructed

ative, there has been, however, a striking improvement in conditions.

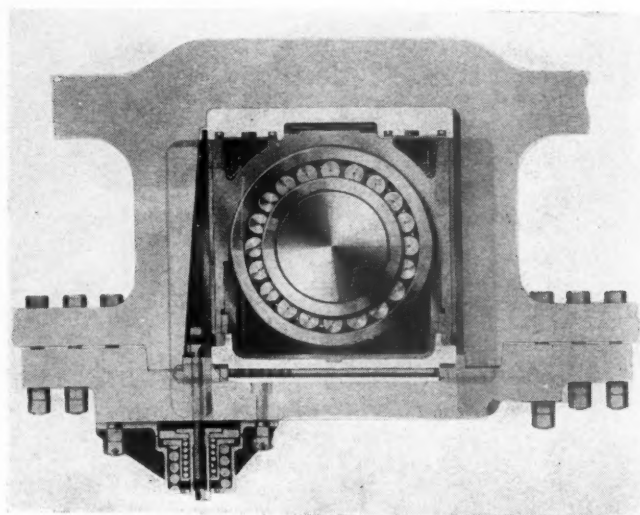
Applications for extensions of time for removal of flues as provided for in Rule 10 totaled 1,401. Of these 84 were rejected, 129 were given extensions for a shorter time than requested, 141 granted extension after defects found were repaired, 20 requests were cancelled, and 1,027 extensions were granted for the full periods requested.

Inspections of locomotives other than steam showed the same trend of increasing defects and a greater number of accidents.

### Compensator and Snubber for Roller-Bearing Driving Boxes

(Continued from page 145)

bolt is attached to the tapered compensator and provided with an adjusting spring seat and collar at the bottom. Referring to the illustration it will be noted that the device is fitted with an inner spring bearing against this collar at the top and against the inner spring pocket at



Franklin Automatic Compensator and Snubber as Arranged for Application to a Roller-Bearing Driving Box

the bottom. There is also a heavy outer snubber spring contained in another pocket.

As arranged for use in connection with roller-bearing driving boxes the device is adjusted to provide a clearance of approximately  $\frac{1}{8}$  in. between the upper inner spring seat and the inner spring pocket. This clearance permits the compensator to move up or down within these  $\frac{1}{8}$ -in. limits, such movement being restricted only by the relatively light inner spring. Inasmuch as the taper of the compensator is 1 in 12 the permitted horizontal movement of the driving box is only about 0.010 in. As wear takes place and the compensator rises more than  $\frac{1}{8}$  in. the box clearance will be gradually increased. However, periodical adjustments of the spring follower will permit the original clearance to be restored without dropping the wheels or disturbing the driving box.

Should any extraordinary force be thrown on the box, the inner spring assembly with its pocket will move downward against the resistance of the heavier outer snubbing spring. A cushioned means of holding the box in place is thus provided.

# Communications . . .

*The Railway Age cannot publish letters from readers who do not supply their names and addresses. Names of correspondents are not published, or disclosed even upon inquiry, unless the correspondent consents. But they must be given us as an evidence of good faith.*

## A Bit of Romantic History of Couriers and Express Riders

NEW YORK

TO THE EDITOR:

Referring to the advertisement by the Union Switch & Signal Co., *Railway Age*, December 28, 1935, picturing a locomotive operating through a violent winter storm, and wherein this underlining quotation appears: "Neither snow, nor rain, nor heat, nor gloom of night; . . ." These lines in their unabridged originality are cut in the granite facade at high elevation, of the United States Post Office, opposite Pennsylvania Station in New York City. I doubt that many postal and railroad men know their ancient authorship and understand their significance. Unabridged, this mystic sentence reads: "Neither snow, nor rain, nor heat, nor gloom of night stays these couriers from the swift completion of their appointed tasks."

These lines were written by Herodotus the famous Greek historian 2400 years ago while paying tribute to the courageous men who carried the mails along the highways and byways of Herodotus' time and far down the centuries to the days of Sargon the Great, who ruled Chaldea 3000 years before Christ. Phiedippides, the youthful and fleetest of foot, of the Athenian dispatch bearers, was a fitting symbol of the men to whom Herodotus paid compliment.

Phiedippides, it was, who carried the message from Athens to the Spartans in which the Greek general, Callimachus, asked for Spartan assistance to repel King Darius' Persian army. Phiedippides carried the message to Sparta, 150 miles distant, with incredible speed, making the run on foot in 48 hrs. and returning to Athens within five days. Immediately thereafter the year 491 B. C. was imperishably fixed in the history of man by the battle of Marathon. Then it was that Phiedippides immortalized himself by carrying the message from Miltiades on the field of Marathon to Athens apprising the Athenians of the defeat of King Darius. Upon entering Athens Phiedippides, already fatigued by previous service, fell dying while saying: "Rejoice; victory is ours; Athens is saved."

And in later times, man's faithful servant, the horse, gloried in "the swift completion of their appointed tasks." According to Marco Polo, the Venetian of the thirteenth century, he had found that Kublai Khan, Emperor of the Mongols, had inherited from his famed ancestor, the Great Ghengis, a postal courier service by man and horse. These mounted post carriers traveled by horse relay with notable speed to the far reaches of the Mongol empire. Perhaps our own Pony Express service of the nineteenth century was a reincarnation of the spirit of the service of Ghengis and Kublai Khan.

In any event, a famous American frontiersman, William F. Cody (Buffalo Bill), as a Pony Express rider, added fame to the service of postal carriers.

The regular assignment of the youthful Cody was the ride from Red Buttes to Three Crossings, 76 miles, exchanging mail pouches and returning. On an unexpected day he was destined to make history for the Pony Express and the postal service. Being informed upon arrival at Three Crossings that the rider beyond was disabled, he was ordered to continue to Rocky Ridge, 85 miles distant. He continued on without rest, received the eastbound mail, retraced his way to Three Crossings and still without rest continued east to Red Buttes. He had made a continuous ride of 322 miles, with but brief stops at the relay stations.

And here was the expressed foundation of such loyal service by those who undertook its duties and hardships—the Pony Express rider's oath:

"I, William F. Cody, do hereby swear before the great and living God, that during my engagement, and while I am an em-

ploye of Russell, Majors & Waddell, I will under no circumstances use profane language; that I will drink no intoxicating liquors; that I will not quarrel or fight with any other employe of the firm; and that in every respect I will conduct myself honestly, be faithful to my duties, and so direct all my acts as to win the confidence of my employers, so help me God."

I know what I have written is far afield from economics, but I have been prompted by the thought that the historic facts cited may serve to inspire the railway postal men, their companion railroad men and the Railway Express Agency couriers of today. They are historic successors of Phiedippides the Greek, the postal couriers of the Mongol emperors and our own riders of the American frontier, the Pony Express.

EDWIN SWERGAL.

## It Seems that Once There Was a Ferryboat Race on the Hudson

NEW YORK

TO THE EDITOR:

Your article, "Prospects for Ferry Boat Race Are Not Bright," in your issue of December 21, 1935, brings out the viewpoint of the railroads which would be the natural contenders. Many of their objections are well founded, and indubitably, if such a race were to be run, many details would have to be worked out in advance. Anyway, no one better than the railroads operating the boats could know what they can or cannot do, so that ends the matter.

The spectacle, which would be offered by such a race with the attendant publicity, would be the thing which would be of benefit to the railroads. The speed at which the boats traveled—whether their maximum or not—would detract nothing from the gala event. No one on a boat, barring an expert, could tell whether the boat was making eight knots or ten, and the cheering would be as loud in either case.

The twenty-third chapter of that splendidly written book "Romance of the Hoboken Ferry," by Harry J. Smith, Jr. (Prentice-Hall, 1931), is entitled "The Race Between the Ferryboats Lackawanna and Ithaca," and tells of the race of those two ferryboats to Newburgh and return. The race was held October 1, 1909, and apparently stirred up considerable interest.

From the foregoing you can see, that like many other ideas, there is nothing new under the sun, and the first (?) ferryboat race—of any distance, anyway—was held twenty-six years ago!

T. T. TABER,  
Chairman, New York Chapter,  
Railway & Locomotive Historical Society.

## Some Notes from the Argentine

BUENOS AIRES, S. A.

TO THE EDITOR:

The regular arrival of *Railway Age* helps mark the rapidly passing weeks. Each issue is three weeks late by the time we see it, but it is welcome none the less; and when we have passed it around the office, it goes to English railway friends at outside points.

The physical appearance of Argentine railways is nothing like the United States roads, but their financial and political problems seem to be identical. South American railway men want more pay for less work and the governments are laying hard-surfaced roads parallel to the railways. There is the added handicap of having interest and dividends to pay in foreign currency which entails a sizeable exchange loss. As you probably know, English management predominates the field here and they have done a good job with the conditions they have had to meet.

From the passenger standpoint, air conditioning is the obvious lack for most of the year the heat and dust is a serious discomfort. However, as they don't provide screens in summer or any appreciable heat in winter, there does not seem to be much probability of going in for the more elaborate equipment.

ROBERT A. CARR,  
Managing Director, Dearborn Chemical Company.



# Odds and Ends . . .

## Holes in One

The 1935 golf season was the first in many years in which this department has not had the pleasure of recording a hole in one made by a railway golfer. We trust that this year the railway knights of the brassie and the niblick will be more fortunate.

## Highest Eastern Line?

One of the highest railroad lines east of the Mississippi river is the Abingdon branch of the Norfolk & Western. In Grayson County, Va., the tracks of the railroad climb the mountains to an elevation of 3,585 ft. above sea level to the town of White Top.

## English Christmas

When the Great Western of England gets festive, it does so in a large way. The holiday decorations at Paddington station, London, involved the use of 18,000 ft. of wood, 2,000 yd. of cloth, miles of wire and 500 additional bulbs, some of as much as 1,000 watts.

## Medicinal Note

Quinine stops were made by the first railroad trains passing through Chillicothe, Ohio. Conductors stopped their trains, crying out, "Twenty minutes for quinine," because of the prevalence of malaria in the lower Scioto valley in the early days. This was one of the measures taken to stop its spread.

## Railway Twins Complete 95 Years of Service

Two Iowa twins, Mark and Charles Anderson of Boone, are enjoying a rest from railroad duties after 95 years of combined service with the Chicago & North Western. These two men, both machinists for the past several years in the motive power department of the Iowa division, have just retired from service. The Anderson "boys" are thought to be the oldest twins, in point of service, on any American railroad.

## Veteran Passes

With the death in Denver, Colo., recently of Harry P. Ryan, one of the last veteran railroaders passed on, who ran trains during the days when Sitting Bull and other Indian chiefs jeopardized railway operations. Mr. Ryan was a conductor on the Burlington out of Alliance, Neb., for 41 years, until his retirement a few years ago. He was the father of Norman A. Ryan, assistant general manager of the Chicago, Milwaukee, St. Paul & Pacific at Chicago.

## School Coaches

"All aboard for school" sounds like a badly scrambled metaphor, but it's more than a figure of speech in Helena, Mont. The recent siege of earthquakes is to blame for it. When the tremors had subsided, Helena's new \$500,000 high school was among the casualties. With buildings tottering and the thermometer diving at the zero mark, the railroads have rushed in long strings of coaches to house the refugees. Again the railroad train had proved its claims for being safer than a man's own home. More recently, 20 of these coaches have been assembled upon one cozy "campus," desks and other school paraphernalia installed and steam lines connected with a central heating plant. On December 16, the capital city of Montana opened its unique high school. The city has been given free use of the coaches by the Great Northern and the Northern Pacific.

## Odd Passenger

The latest in the transient world is the hobo snake. The Louisville & Nashville reports that it has heretofore been honored by being used as a means of locomotion by tramp dogs, cats, roosters and pigeons, but that it had never met a tramp snake until recently when a two-foot rattler was discovered riding on the coal tender of a southbound passenger train. A deep student of transportation matters, the serpent was making his way over the coal pile toward the engine cab when colored Fireman Enoch Fluker saw him. The rule book doesn't cover

the matter of snake passengers, but Enoch has his own ideas on the subject; and the snake unwisely added insult to injury by making a sneering noise with his rattle. Aggrieved, Fireman Fluker fed him a fast one with the edge of his scoop and the snake rapidly became mincemeat.

## Canine Devotion

This department has taken cognizance, from time to time, of faithful dogs that have awaited their dead masters for years at railway stations. Such an exhibition of faithfulness on the part of a dog at the Shibuya station in Tokyo so impressed the Japanese that a statue to the dog has been erected at the station and small models of the statue have been sent to every school in the country to symbolize faithfulness.

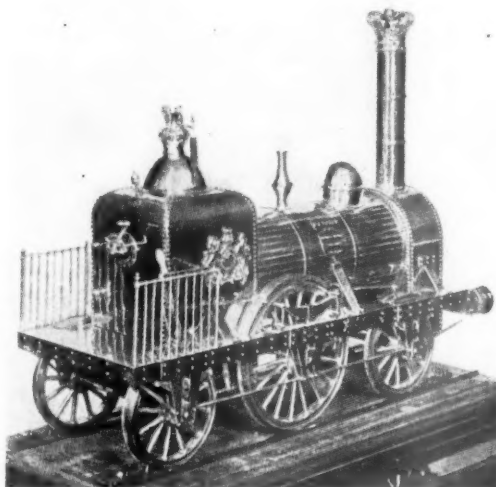
## Football Specials

We are indebted to Franklin Snow of New York for sending in the following, written by Lawrence Perry for the New York Sun:

"One of the interesting phases of the current football season in the East has been the return to popular vogue of the railroads' special football trains. Never since the motor car assumed importance as a medium of transportation to and from the football amphitheatres at Yale, Princeton, Pennsylvania, Harvard and other university centers which attract spectators from within a radius of 100 miles or so, have the railroads, so we are informed, carried so many passengers as this fall. It is pleasing to experience this recrudescence of the football special. A well-filled railway coach bound to a big game sees nearly a hundred men and women joined in a community of interest, forming a bond so tangible that even the casual traveler notes it and in brief time catches the prevailing spirit. He shares in it too, for your football special is, above all things, a happy democracy. The carefree person who has taken a bit too much stimulant here has a free field for his humorous fancy and ever an appreciative audience, whereas, as you know, the same person at the wheel of an automobile is a menace to himself and to his fellow beings.

"If you join in an argument concerning the outcome of the game or the merits of players, you are welcome if you be good-natured and have something to say. The whole spirit is one of fraternity. After the game, returning home you may relax either with pleasant thoughts of victory or mournful contemplation of defeat. There are no searchlights plunging at you from the darkness, no horns assailing your ears, no traffic cops who are ever lurking to hand you the tickets that give you free seats in a courtroom goal line."

\* \* \*



A Coffee Urn that Served Thirty Years in the Station Restaurant of the Great Western at Swindon, England, and Is Now Part of the Centennial Display



# NEWS

## Express Agency Expands Its Air-Express Service

Nation-wide operations to begin on February 1 are outlined by President L. O. Head

A nation-wide unified air and air-rail express service providing high-speed shipping facilities to and from every point in the United States will be inaugurated February 1, L. O. Head, president of the Railway Express Agency, announced on January 10 following a meeting with the representatives of the interested air lines. Through contracts signed by 20 of the 23 domestic air lines in the United States and Pan American Airways with the Railway Express Agency, direct air-express service, with door-to-door pick-up and delivery, will be provided to 215 cities in the United States and Canada and to 32 foreign countries through the Pan American Airways System. In addition, through the use of combination air-rail service, all of the 23,000 Express Agency offices become air express stations.

The air transport lines included in the co-ordinated set-up are the following: American Airlines, Boston-Maine Airways, Bowen Air Lines, Braniff Airways, Central Airlines, Central Vermont Airways, Chicago & Southern Air Lines, Columbia Air Lines, Delta Air Lines, Eastern Air Lines, Hanford Air Lines, National Air Lines System, National Parks Airways, Northwest Airlines, Pennsylvania Airlines, United Air Lines, Varney Air Transport, Watertown Airways, Western Air Express Corporation, and Wyoming Air Service.

Co-ordination of the air-express business of these air lines through Air Express division of Railway Express Agency, the statement says, "will provide the shipping public more expeditious and economical through service with a centralized responsibility." Mr. Head further characterized the development as "one of the most progressive in express transportation since the original consolidation of the various express services of the country nearly two decades ago."

"With the progress of aviation, improved equipment, and general development, air-express has grown rapidly until at present it provides an important phase of air transport operation," he continued. "The fleet of nearly 500 transport planes now being operated on domestic and Pan American foreign lines will carry express shipments. Many industries have come to be regular users of air-express. Efficiency in maintenance of schedules by the air

lines has been a major factor in its rapid development. During 1935, 95 per cent of all scheduled trips were completed by the air lines."

Development of air-express traffic is said to have been particularly rapid during the past three years, "with poundage more than doubling annually until now it has become a regularly used transportation service by thousands of industrial concerns. Outstanding among these are the news and advertising fields, automotive industries, fashion goods and allied industries, motion picture companies, drug manufacturers and machinery makers."

With the consolidation of air-express service, the 23,000 offices of Railway Express Agency throughout the country will serve shippers by providing a unified air and air-rail service to and from every point in the United States and Latin-America.

## Medal of Honor Awarded for Bravery

Upon recommendation of the committee on award of medals of honor, approved by the Interstate Commerce Commission, the President has awarded a medal of honor to Fred G. Wolff, of Belvedere, Ill., a car foreman on the Chicago & North Western, under the act of 1905 which provides for bronze medals of honor to be awarded for outstanding feats of bravery in connection with the saving of life upon railroads. Mr. Wolff, at the risk of his own life, rescued an express messenger from the express compartment of a motor car of which the gasoline tank had caught fire, just before the tank exploded.

## Chicago Chapter of Historical Society to Be Formed

Preliminary steps toward the organization of a Chicago chapter of the Railway & Locomotive Historical Society were taken on December 10, when members residing in Illinois, Wisconsin and Indiana elected officers and applied to the national headquarters for a charter. Officers chosen for the Chicago chapter are: Chairman, Carlton J. Corliss, assistant in public relations of the Illinois Central; vice-chairman, A. W. Johnson; secretary, Delmar W. Youngmeyer; treasurer, A. Osterholm. The objectives of the society are historical research and the preservation of railway records of permanent interest. The headquarters of the society are in the Baker Library, Boston, Mass.

The New York Chapter of the Society plans on January 26 to make a "farewell trip" over the Tuckerton Railroad in New Jersey, which is scheduled for abandonment. A special train is to be provided for the inspection trip.

## Carriers Will Keep Pace With Heavy Industries

Fletcher sees no reason for belief that trend will fail to follow that of capital goods

"There is every reason to believe that when the heavy industries find themselves on a permanent and confident business basis the rails will be marching along with their ancient allies," said R. V. Fletcher, vice-president and general counsel of the Association of American Railroads, in an address before the Central Railway Club of Buffalo, N. Y., on January 9. Commenting on statements to the effect that the country has emerged from the valley of depression, but that the railroads "furnish an exception to the general rule and alone show discouraging signs of lagging behind in the program of recovery," Judge Fletcher said he thought it will be found, upon careful study of the situation, "that the rails are keeping pace with the important capital goods industries in the difficult process of rehabilitation."

"Net railway operating revenue of Class I roads for November, 1935, shows a 67 per cent increase over some months in 1934 and the October showing was even better," he said. "In spite of adverse business conditions in the early part of the year, 1935 was the best year since 1931. Gross revenues in 1935 approximate \$3,440,000,000, which is nearly 55 per cent of the high earnings of 1929, and about 65 per cent of the earnings for 1930, which many have now come to regard as a normal year. This is about in line with the ratio for steel ingots, which this year stands at 57½ per cent of peak production, and compares favorably with a percentage applicable to building construction, lead, copper, lumber, and coal."

Changes in the laws regulating the railroads are also necessary if they are to go forward as useful servants of industry, Judge Fletcher said.

"Much of the legislation applicable to railroads has been outmoded by the course of events. It is an outworn survivor of a period when railroads enjoyed a practical monopoly of transportation and when the relation of regulation to competition was not thoroughly understood. For fifty years the railroads have been subject to regulation which has become stricter and more complicated as the years passed. The law has been administered by a very able and impartial body, free from partisan politics, and with an honorable record for honesty and competency. Despite the ad-

(Continued on page 160)

## Suspension of Storedoor Tariffs Asked by A. T. A.

Proposed Western service assailed on ground that it would mean defeat of trucks

Charging that the situation "cries out for investigation," American Trucking Associations, Inc., has asked the Interstate Commerce Commission to suspend proposed tariffs of Western railroads establishing a free pick-up and delivery service. "This is a major case involving a sweeping readjustment and a reconstruction of practices," the protest states. The proposed service is assailed on the ground that it would mean the defeat of truck competition.

A brief, filed by Harry C. Ames, attorney for the national trucking association, contends that since enactment of the federal motor carrier act the status of railroad pick-up and delivery has been changed drastically. "This is the first major proposal involving a service contemplating joint participation of rail and truck carriers since the motor carrier act, 1935, became law," he said. "It covers a most comprehensive territory and presents questions of national importance. While it is true that the commission in the past has permitted tariffs providing store-door delivery to become effective without suspension and investigation, those actions afford no proper precedent in this situation because we are confronted with new legislation which has completely changed the jurisdictional and legal principles involved. The legal questions raised, coupled with other circumstances presented by the new legislation, make it seem especially imperative that no drastic and sweeping change of this character be permitted without a full investigation."

The trucking association charged that the proposed service would be bad in law because it would create undue prejudice against localities; because, under the interstate commerce act, the rail carriers are obligated to publish the rate which they will pay the truckmen, and the truckmen, under the motor carrier act, are required to file their rates and contracts; because the dissipation of rail revenue is not considered; because the allowance to shippers of 5 cents per 100 pounds, in effect, is a "plain rebate"; because the allowance, even if permitted under the law, would be illegal if it exceeded the cost of performing the service; and because passage of the motor carrier act changes the complexion of the entire situation.

"If, for argument's sake," the brief asks, "we indulge the violent assumption that this is a bona fide carrier service which the shipper is performing, and it costs the shipper 1 cent to perform it, how would we escape the conclusion that the carriers are rebating 4 cents per 100 pounds? The moment carriers are to be given official immunity to turn over to a shipper, willy-nilly, the performance of a portion of their service, and pay him an 'allowance' without regard to the cost of doing that service, that moment the commission might just as well write the rebating provisions off the statute."

## Prevention of Government Ownership

Raynard F. Bohman, general traffic manager of the Heywood-Wakefield Company, Gardner, Mass., has been appointed chairman of the National Industrial Traffic League's National Committee for the Prevention of Government Ownership. The committee, which was created at the annual meeting of the league in Chicago, will have for its objective, by means of collecting and disseminating authentic information, the combating of the move toward government ownership and operation of railroads in the United States.

## Pullman Safety Record

No Pullman passenger or employee was killed while traveling in Pullman cars during 1935, and no employee lost his life by accident while on duty during the year, according to figures compiled by the Pullman Company. This record duplicates that of 1932, when the Pullman Company received the E. H. Harriman Certificate of Special Commendation from the American Museum of Safety. During 1935, more than 15,000,000 passengers were carried over 7,000,000,000 passenger miles in Pullman cars.

## Highway Fatalities Increase

The National Safety Council, publishing its preliminary estimate for the year 1935, calculates that motor vehicle deaths on the highways in the United States in the 12 months have reached a total of 36,400, which is a little larger than the total for 1934. The population of the country has increased about one per cent, and registrations of automobiles have advanced 4.3 per cent. A list is given of the estimated total of deaths in different states and in New England there are considerable decreases; also in North Dakota, Illinois and Minnesota.

## Georgia Intrastate Fertilizer Rates Found Discriminatory

Following an investigation instituted on petition of the railroads the Interstate Commerce Commission has issued a report finding that intrastate freight rates on fertilizer and fertilizer materials ordered on February 18, 1935, by the Georgia Public Service Commission are such as to impose a substantial burden on interstate commerce and that traffic moving under them does not and will not contribute a fair share of the revenues required to maintain the railroads. The commission also found that the interstate rates on those commodities to and from Georgia are just and reasonable and that if the Georgia rates are increased to the level of the interstate rates prevailing throughout the South it will result in increased revenue to the carriers concerned. No order was entered but the commission said that if the prescribed corrective intrastate rates are not established by January 27 the matter might be brought to its further attention. The reduction in revenues under the state commission order was estimated at over \$224,000 a year and the report says that substantially the amount of that reduction would be regained by the railroads if the rates were increased to the level in effect immediately prior to March 20.

## Calls Public Ownership Vital Current Question

Dunn says it is the most important single economic and political problem of today

"The most important single economic and political question confronting the American people today is that of government ownership of railways," declared Samuel O. Dunn, chairman of the Simmons-Boardman Publishing Company and editor of *Railway Age*, in an address on January 10 before the Birmingham Traffic and Transportation Club at Birmingham, Ala. "That most persons do not realize this, and that the question is being much less discussed than many others, does not alter the fact of its pressing importance. Few persons realized there was any danger of a great depression. Otherwise, we might have done something to prevent it. In no country excepting Switzerland has government ownership been adopted as a result of discussion and popular vote. We are unwittingly traveling a road straight toward it, as many other peoples have done, and will awaken some morning to find we have arrived at it unless we change our direction."

"The American people do not now favor government ownership. Senator Wheeler of Montana has done them a service by introducing a bill providing for it, because his bill may provoke enough discussion of it to cause changes in prevailing policies leading toward it."

"Important government economic policies are usually determined in this country by the pressure of organized groups seeking their own supposed selfish interests regardless of the public interest. There is danger of government ownership because almost every effective pressure group—political, business, agricultural or labor—is defending or promoting policies tending permanently to destroy the earning capacity and credit of the railways. They have suffered worse financially within recent years than almost any other industry because they have felt the full effects of the depression, and in addition, those of increasing subsidized and unregulated competition and of certain New Deal policies."

"The New Deal administration has advocated equalization of regulation of transportation, but has greatly increased the operating expenses of the railways by its policies of advancing wages and prices. The railway labor unions have been seeking legislation for a 30-hour week, 'full crews' and limitation of length of trains that would increase operating expenses \$1,000,000,000 annually. This would compel government ownership by making it impossible to pay operating expenses from earnings. Having failed thus far to get the proposed legislation, the heads of all excepting two of the railway labor unions have joined in a resolution demanding government ownership, under which the taxpayers would be called upon to defray the huge railroad deficits that granting of their demands would cause."

"Meantime, business interests that profess to be opposed to 'socialistic' policies of government regimentation of and com-



petition with private business in general as tending to destroy private enterprise, continue, as before the New Deal, to advocate application of these identical policies to the railways. Some of them say the railways should seek reduction of their own regulation instead of increased regulation of their competitors. But when the railways seek passage of legislation such as the Pettengill bill to repeal the long-and-short-haul section of the Interstate Commerce Act, the purpose of which is to relax the regulation which is applied to them, they are promptly met with the strong opposition of shippers' organizations such as the Mississippi Valley Association and the Intermediate Rate Association in the western inter-mountain territory. Furthermore, business interests are still promoting construction of more waterways and commercial highways in all parts of the country. Their waterway projects which are intended solely to subsidize those promoting them at the expense of all the taxpayers of the country, would involve government expenditures to divert traffic from the railways, although the members of the National Association of Manufacturers and the Chamber of Commerce of the United States are constantly adopting platforms and referendums declaring that business is opposed to large and wasteful government expenditures in competition with private enterprise.

"The gross and net earnings of the railways have improved within recent months. At the present time, however, 89 railway companies operating 72,225 miles of line, or 28 per cent of the total operated mileage of the country, are in bankruptcy and being operated by the courts through receivers or trustees. This is the worst railroad bankruptcy record in history; and other railways have been saved from admitting their bankruptcy only by government loans. After six years of depression, and the severest retrenchments ever made, the net operating income of the railroads in 1935 was 60 per cent less than in 1929, and in the five years ending with 1935 was 61 per cent less than in the five years ending with 1929. Because of the vast retrenchments they have had to make they need to make vast expenditures for rehabilitation and improvements to meet outside competition and public demands for better and cheaper service. No industry can reasonably be expected under private ownership adequately to restore its earning capacity and credit under continuance of all the adverse influences to which they are being subjected by organized labor, organized business and the govern-

ment policies which both business and labor have got adopted in their supposed selfish interest.

"The blindness of business interests to the dangers of the railway situation would be astounding if they had not shown equal blindness before the depression to the dangers of the economic situation then existing. Business professes opposition to 'socialistic' policies. The adoption of government ownership of railways would do more to advance state socialism than all the New Deal policies opposed by business that have been adopted, proposed or even suggested. As owner of the railways, and therefore purchaser from industry of more than \$2,000,000,000 worth of equipment, materials and fuel annually, the government would have a perfectly constitutional power to dictate prices, profits and labor relations to a large part of the industries of the country. It would become immediately the employer of 1,000,000 additional persons, the number of which would largely increase, and it would unquestionably, from the beginning, incur huge railway deficits for business and other taxpayers to meet.

"There is only one way to prevent government ownership. This is to reverse policies which, by increasing operating expenses and diverting traffic, are threatening to incapacitate the railways permanently from earning enough to meet their financial obligations and raise the capital required to improve and cheapen their service. It will do no good to argue against it if there is continuance of policies leading directly toward it. If any industry must be operated with inadequate profits or at a loss it must be owned and operated by government or not operated at all.

"There are none so blind as those who will not see. Business men are so blind regarding the present railway situation because they think it is contrary to their immediate selfish interests to face it and help secure adoption of the policies necessary to remedy it. The same shortsightedness caused the depression and later caused many business men to rush into policies of N. R. A. which they have since repudiated. Unless they awaken soon to the dangers of the railway situation they will awaken to them when it is too late."

#### Six Specials Carry 1,000 Fans to Rose Bowl

More than 1,000 football enthusiasts were transported in six special trains from Dallas, Tex., to Los Angeles, Cal., to see the

Southern Methodist University football team play that of Stanford University in the Rose Bowl on January 1. The trains left Dallas on December 29, over the Texas & Pacific, at intervals of five minutes and arrived in Los Angeles over the Southern Pacific within five minutes of each other. The Texas & Pacific 900-type locomotives were run through from Dallas to El Paso, Tex., a distance of 647 miles.

#### Progress in Grade Crossing Program

Plans for grade crossing projects to the amount of \$56,749,000 had been approved by the Bureau of Public Roads up to January 11 and contracts had been awarded to the amount of \$27,675,837, including \$1,847,189 during the week.

#### No Passengers Killed in Train Accidents

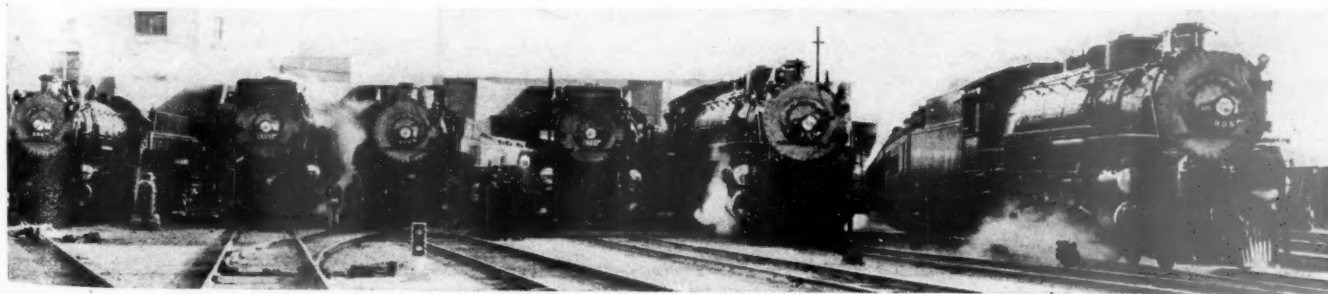
The railroads of the United States went through the whole year 1935 with no record of a passenger killed in a train accident—the term train accident being that used for collisions, derailments and other accidents wherein there is damage to cars or engines. This is the record as given out in a preliminary statement by H. G. Taylor, chairman of the Western Association of Railway Executives. The best previous record was in 1932, when one passenger was killed in this class of accidents; in 1931, the total was four.

#### Railroads and Guffey Coal Law

The legal department of the Postoffice Department still has under consideration the question of whether or not the railroads, as carriers of the United States mails, come within the provisions of the Guffey coal conservation act of 1935 that contracts with the government "for any public work, or service," shall contain a provision that the contractor will buy no bituminous coal for use in the carrying out of such contract from any producer who is not a member of the code as certified by the National Bituminous Coal Commission.

#### I. C. Advertising Campaign to Dramatize Emergencies

An institutional advertising campaign has been launched by the Illinois Central, in which the element of drama is being injected. Each advertisement in the campaign is to be the story of an unusual or unexpected service emergency met by the railroad and will relate in a dramatic manner how the service was performed. One insertion will tell how the railroad came



Dallas Union Station, December 29. Six Trains Ready for Pasadena



to the rescue of a hospital in a sudden cold wave and rushed coal direct from the mines; another will reveal how executives of three manufacturing interests were brought together to work out a mutually beneficial marketing campaign. Each advertisement will also carry a brief message from President L. A. Downs, commenting on the railway policy involved.

#### Across the Continent in 9½ Hours

Howard Hughes, an amateur flier, arrived at Newark (N. J.) airport on January 14, at 12:42 a. m., in 9 hr. 27 min. 10 sec., from Burbank Field, Cal. The estimated distance is 2,450 miles, indicating an average speed of about 260 miles an hour. Long distances were flown, with a slight tail wind, at 295 m.p.h. The record, through, is 35 min. better than the best previous transcontinental performance. The aviator said that for much of the way he flew at an altitude of about 18,000 ft., using oxygen a part of the time to breathe.

#### Five Per Cent Increase in German Freight Rates

German railroads are going to make a general increase of 5 per cent in freight rates—except on certain food products and some export and import traffic—and, according to dispatches in New York papers, this action is taken mainly to enable the railroads to increase their purchases; deferred maintenance having made necessary large expenditures in this direction in 1936.

The railroads' needs for the coming year are said to be about 165,000,000 marks (\$66,000,000) over and above what is expected from earnings and borrowings, and the balance, except what can be saved in administration and changes in certain rates, must come from the planned increase in freight rates. Maintenance of plant and rolling stock will require the larger part of the expected new income.

#### More Roads Offer Free Pick-up and Delivery Service

Following the decision of the Louisville & Nashville, the Nashville, Chattanooga & St. Louis and the Illinois Central and other southern lines to provide free pick-up and delivery service for LCL freight throughout their entire systems, the Chicago & Eastern Illinois, the Chicago, Indianapolis & Louisville, the Wabash and the Alton, effective January 20, will offer the service to all destinations on the Louisville & Nashville, the Mobile & Ohio, the St. Louis-San Francisco, the Nashville, Chattanooga & St. Louis, the Illinois Central and several short line railroads. Concurrently, the Belt Railway of Chicago announces that it will pick up freight without charge or without weight limitation from any and all industries throughout the Chicago industrial district, regardless of destination.

#### Transportation Bills in Congress

The House rules committee was expected to take up at a meeting late in the week consideration of a resolution providing for debate in the House at an early date of the Pettengill bill to repeal the long-and-short-haul clause of the fourth section of the interstate commerce act.

The bill was favorably reported by the committee on interstate and foreign commerce at the last session of Congress.

Passage of the bill for the regulation by the Interstate Commerce Commission of water transportation was advocated by Co-ordinator Eastman in an address at Jacksonville, Fla., on January 13 before the Association of Marine Terminal Operators. Senator Wheeler, chairman of the Senate committee on interstate commerce, was to be urged, upon his return to Washington this week, to call the bill up in the Senate as early as possible.

#### L. O. Murdock Becomes Member of Adjustment Board

L. O. Murdock, assistant to the executive vice-president of the Chicago, Burlington & Quincy, in charge of labor matters, whose appointment as a member of Division 3 of the National Railroad Adjustment Board, was noted in the *Railway Age* of January 11, was born on June 20, 1879. Mr. Murdock entered the service



L. O. Murdock

of the Burlington on October 28, 1897, as a station helper at Syracuse, Neb. Subsequently he served successively as an operator, relay operator, dispatcher and night chief dispatcher. He was appointed trainmaster at Lincoln, Neb., on July 1, 1917, and in December of the same year he was sent to Chicago as inspector of transportation, being assigned to the vice-president's staff on April 1, 1919. Mr. Murdock was appointed division superintendent at Alliance, Neb., on May 1, 1926, and two years later he was appointed assistant to the operating vice-president at Chicago. On April 1, 1935, his title was changed to assistant to executive vice-president.

#### Club Meetings

The Railway Club of Pittsburgh will meet at the Fort Pitt Hotel on Thursday evening, January 23. Following dinner at six o'clock, P. E. Peifer, superintendent of operation of the Independent Subway System of New York, will speak on the Independent City-Owned Rapid Transit Railroad of the City of New York.

The New England Railway Club will hold its next meeting at the Copley-Plaza Hotel, Boston, on Tuesday evening, February 11. E. K. Bloss, supervisor of railmotor car maintenance of the Boston &

Maine, will present a paper on Diesel engines.

Numerous questions relating to the operation of railway passenger car trains in high-speed service will be asked and answered at the next meeting of the Western Railway Club, to be held Monday evening, January 20, at the Hotel Sherman, Chicago. The principal paper, "Public Reaction to High-Speed Trains," will be presented by W. W. Colpitts, Coverdale & Colpitts, New York.

The annual meeting of the General Eastern Passenger Agents Association of New York was held at the Biltmore Hotel in that city on January 10. The following officers were elected: President, C. B. Perkins, general eastern passenger agent, Norfolk & Western; vice-president, A. L. Miller, assistant general passenger agent, New York Central; secretary, Claude T. Hunt, general eastern passenger agent, Southern; treasurer, J. L. Homer, assistant general passenger agent, Delaware, Lackawanna & Western; assistant secretary, C. C. Trueb, assistant general passenger agent, Pennsylvania. The association's membership includes representatives of railroads throughout the United States, Mexico, Canada and practically every European country.

The next meeting of the Eastern Car Foreman's Association will be held at 8 p. m. on January 24 in the Engineering Societies building, 29 West Thirty-Ninth street, New York City. The meeting will be addressed by Bernhard F. Cordts, engineer of cars and shops of the Independent Subway System, New York, whose subject will be "Three Years Operation of the Independent Subway System."

#### Railroad Veterans to Promote Equitable Regulation

The Society of Officers, United Associations of Railroad Veterans, has launched a campaign designed to promote in Congress and the state legislatures laws which will equalize competition between railroads and other carriers. The announcement of the campaign was made after a special meeting of the Society on January 5 at the Hotel Lincoln, New York, where representatives of some 20 major railroad veterans' organizations were in attendance. John Draney, veteran Delaware, Lackawanna & Western engineer and president of the society, explained that the primary purpose of the campaign is to help railroads increase their business and to bring about resultant increases in opportunities for employment of railroad men.

A special legislative committee was appointed at the January 5 meeting and it is now at work in outlining a program to mobilize the political strength of the constituent-organization members in the drive for the desired legislation. Among the national objectives is the promotion of legislation to regulate water carriers and to eliminate the long and short haul clause of the Interstate Commerce Act.

#### A. R. E. A. Nominates Officers

The nominating committee of the American Railway Engineering Association has prepared the following ticket for submission to the members:

President, A. R. Wilson, engineer of

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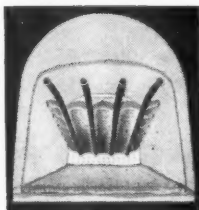
# IT PAYS TO CONCENTRATE WHERE RESULTS ARE LARGE

Concentration on fuel conservation is the one place where the reward is great.

» » » Make sure you get the full coal savings the Security Arch gives by maintaining a complete arch at all times.

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REFRACTORIES CO.**

*Refractory Specialists*



**AMERICAN ARCH CO.  
INCORPORATED**

*Locomotive Combustion  
Specialists* » » »

bridges and buildings, Eastern region, Penna., Philadelphia, Pa.

Second Vice-President, F. E. Morrow, chief engineer, C. & W. I., Chicago.

Secretary, E. H. Fritch (re-nominated).

Treasurer, A. F. Blaess, chief engineer, I. C., Chicago.

Directors (three to be elected), H. R. Clarke, engineer maintenance of way, C. B. & Q., Chicago; W. G. Arn, assistant engineer, I. C., Chicago; William Michel, chief engineer, Engineering Advisory Committee on Way and Structures, Van Sweringen Lines, Cleveland, Ohio; F. P. Turner, principal assistant engineer, N. & W., Roanoke, Va.; F. L. C. Bond, general superintendent, Central region, C. N. R., Montreal, Que.; W. M. Post, assistant chief signal engineer, Penna., Philadelphia, Pa.; C. W. Baldrige, assistant engineer, A. T. & S. F., Chicago; W. H. Penfield, chief engineer, C. M. St. P. & P., Chicago; and J. B. Hunley, engineer of bridges and structures, C. C. C. & St. L., Cincinnati, Ohio.

Members of nominating committee (five to be elected), Richard Brooke, assistant general manager, C. & O., Richmond, Va.; H. Austill, bridge engineer, M. & O., St. Louis, Mo.; G. P. Palmer, engineer of maintenance and construction, B. & O. C. T., Chicago; C. M. McVay, assistant superintendent, N. Y. C., Alliance, Ohio; B. R. Leffler, bridge engineer, N. Y. C., Cleveland, Ohio; F. R. Judd, engineer of buildings, I. C., Chicago; L. J. Riegler, assistant engineer, Penna., Pittsburgh, Pa.; L. P. Kimball, engineer of buildings, B. & O., Baltimore, Md.; C. F. Ford, supervisor of tie and timber department, C. R. I. & P., Chicago; and P. M. Gault, signal engineer, M. P., St. Louis, Mo.

In addition, J. C. Irwin, valuation engineer, B. & A., Boston, Mass., automatically advances from second vice-president to first vice-president.

### Exhibition of Model Engineers

The eighth annual exhibition of the New York Society of Model Engineers, Inc., will be held from February 7 to 22, inclusive, at the club rooms of the Society on the third floor of the Knickerbocker build-

ing, 152 West Forty-second street, New York. The exhibition will be open from 1 p. m. to 10:30 p. m. every weekday, and an admission fee of 25 cents will be charged.

The accompanying illustration is representative of the Society's model railroad layout. They show sections of the 1/4-in.-to-the-foot scale right-of-way of the road which is known as the Union Connecting Railroad. Much of the 400 ft. of operating track of this model layout is main line.

### Regulations for Motor Carrier Tariffs Issued

Tariff circulars MF No. 1 and MP No. 2, containing rules and regulations to govern the construction and filing of freight rate and classification and passenger fare publications by motor carriers, were issued this week by the Bureau of Motor Carriers of the Interstate Commerce Commission, accompanied by commission orders making them effective. The regulations cover not only the rates and fares of common carriers but also schedules of minimum rates, fares, or charges of contract carriers. All tariffs and schedules filed on and after the date of approval of the circulars, January 6, must conform to these regulations, except as indicated in a "foreword" which authorizes initially publications that meet the general intent, or otherwise authorized by the commission. The "foreword" is as follows:

"Contrary to the understanding of many operators, the Commission will not prescribe initial [first] rates or charges for motor carriers. The Motor Carrier Act, 1935, leaves such rates or charges to the discretion of the carriers. Thereafter the Commission may, upon complaint or upon its own initiative, require changes in rates or charges which it finds to be unlawful, or prescribe new rates or charges, but only after a formal hearing.

"The Commission deems it desirable to prescribe at this time only a few simple regulations to govern the construction, filing and posting of tariffs and schedules. These regulations may have to be changed or amplified later, but before that is done,

there will be opportunity to study the tariffs and schedules initially filed and learn more about what is needed.

"Carriers which are already using printed tariffs or schedules may, if they so desire, file such publications with the Commission as their initial tariffs or schedules, provided they feel such publications meet the general intent of these regulations. All initial tariffs or schedules filed will be deemed to comply with the law relative to filing unless and until they are rejected by the Commission with directions to file other tariffs or schedules in lieu thereof. In the event of such directions, the tariffs or schedules already filed shall be the effective tariffs or schedules until revised tariffs or schedules have been filed with the Commission in accordance with its directions. All tariff publications filed after the initial tariffs or schedules have been filed must conform to these regulations.

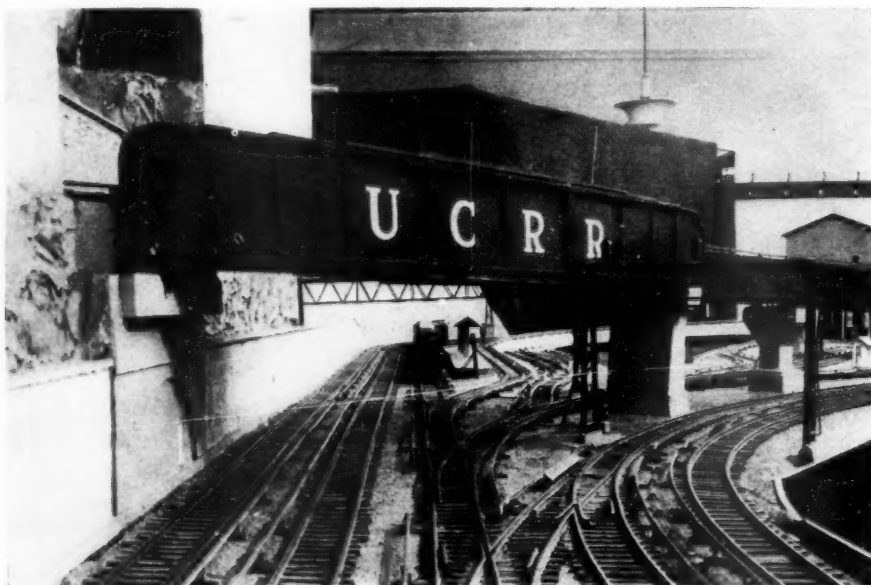
"Tariffs containing joint rates or charges applying in connection with rail carriers or railroad-owned water carriers are to be published and filed in accordance with Tariff Circular No. 20. Tariffs containing joint rates or charges applying in connection with water carriers, other than railroad-owned, are to be published and filed in accordance with these regulations.

"Whenever tariffs or schedules already printed are used for filing, the MF-I. C. C. number, the new date of issue and the effective date must be shown but may be applied with pen and ink. See Rule 2(a) and (e)."

Commodity rates may be published on articles in stated truckload or less-than-truck-load quantities and, if so published, shall take the precedence over class rates. Rates, charges, and classifications which have been filed with the commission must be allowed to become effective and remain in effect for a period of at least 30 days before being changed, canceled or withdrawn, unless otherwise authorized by the commission. Each carrier must post and file at each of its stations or offices at which an exclusive agent is employed all of the tariffs or schedules applying from, or at, such station or office, and must also post and file at its principal place of business all of its tariffs or schedules. All tariffs or schedules must be kept available for public inspection or examination at all reasonable times.

The commission on January 14 issued copies of its new forms BMC-20, BMC-21, BMC-22, and BMC-23, for applications for authority under Section 213 of the motor carrier act to consolidate or to merge; to purchase, lease or to contract to operate the properties of a motor carrier or to acquire control of such carrier through purchase of its stock; for authority under Section 214 to issue securities, or to assume obligation or liability as lessor, lessee, guarantor, indorser, surety, or otherwise, in respect of the securities of any other person, natural or artificial.

President Roosevelt has transmitted to Congress a deficiency estimate of \$1,075,000 for the expense of the commission's regulation of motor carriers for the fiscal year 1936, which is being considered by the Senate appropriations committee in place of the bill which failed of passage for last summer. For the fiscal year 1937



Courtesy New York Society of Model Engineers



the House appropriations committee has recommended \$1,700,000 for motor carrier regulation, the amount estimated by the Budget Bureau after the commission had asked for \$3,050,490. The commission had planned to employ a staff of about 900 persons for the work on the ground that a large staff would be needed at first to handle the applications for certificates and permits filed by motor carriers under the "grandfather" clause, which have recently begun coming in in large numbers. It is now estimated that the proposed appropriation will allow of a staff of about 472.

### Wood Preservers' Convention

The American Wood-Preservers' Association will hold its thirty-second annual convention at the Peabody Hotel, Memphis, Tenn., on January 28-30. Among the features of the program of special interest to railway users of treated timber are the report of the Committee on Preservatives and a paper on Creosotes—Their Toxicity, Permanence and Permanence of Toxicity, by W. H. Snell and L. B. Shipley. This will be presented on Tuesday morning. On Tuesday afternoon, reports will be presented on the pressure treatment of ties, of timber and lumber and of poles and on the non-pressure treatment of poles; on tie service records and on bridge and structural timber. On Wednesday forenoon, H. F. Sharpley, assistant chief engineer of the Central of Georgia, will present a paper on The Experience of the Central of Georgia with the Use of Treated Materials, followed by reports of the committees on Marine Pole, Pole and Post Service Records and on Diversified Uses of Treated Wood.

On Thursday forenoon, Nelson C. Brown, of the New York State College of Forestry, will present A Long-Range View of Lumber and Cross Tie Production and Some Factors Bearing Upon the Future Use of Treatable Materials in the United States.

### Midwest Shippers' Board

Expansion of the activities of the Midwest Shippers' Advisory Board to deal with legislative matters and tariff simplification was decided upon at the twelfth annual meeting, held at Chicago on January 9. This extension of activities is an effort on the part of shippers to take a more active part in legislative matters which are considered to be inimical to the interests of railroads and shippers. A committee of 14 members, with W. Y. Wildman, executive director of the Illinois Coal Association, as chairman, will attend to legislative matters. The simplification of tariffs will be studied by a committee of four members, with R. M. Field, executive vice-president of the American Feed Manufacturers' Association, as chairman.

Officers at this meeting were: Geeral chairman, J. E. Bryan, traffic manager of the Wisconsin Paper & Pulp Manufacturers' Traffic Association; alternate general chairman, G. A. Bahler, general traffic manager of the Caterpillar Tractor Company; general secretary, W. Y. Wildman; and secretary, A. W. Wilkins.

The principal speaker at the meeting,

which was attended by more than 300 shippers and railroad representatives and which was the largest gathering in four years, was Donald D. Conn, executive vice-president of the Transportation Association of America. He warned against increasing inroads into private business by the government.

### P. R. R. Plans Changes in Storedoor Service Arrangements

Far-reaching changes in the Pennsylvania's l. c. l. storedoor collection and delivery plan are anticipated in a statement issued by that road on January 14. The changes, the statement says, "will embody valuable suggestions received as a result of the extensive mail inquiry among patrons inaugurated by the railroad in the latter part of 1935." Details are now being worked out prior to actually making the improvements effective. Their purpose is to increase the convenience of the service and extend its scope.

"A number of changes", the statement continues, "have already been made, following suggestions received through the mail inquiry. They include later closing hours for the acceptance of freight, earlier deliveries, and rearrangement of various other features of the service to meet the requirements of patrons."

"The Pennsylvania's collection and delivery service was placed in effect on December 1, 1933. From a small beginning, it has grown steadily in favor until today it constitutes a most important factor in the railroad's entire l. c. l. merchandise traffic. In 1934, the first full calendar year of operation, 2,643,310 shipments were handled under the plan. In 1935, preliminary figures indicate the number of shipments will exceed 4,000,000, an increase of at least 50 per cent. At the present time, the service accounts for nearly a third of all the l. c. l. business of the railroad, and has in the neighborhood of 75,000 regular patrons."

### Cent-a-Mile Fare Brings Traffic and Revenue Rise on F. J. & G.

The one-cent-per-mile fare which the Fonda, Johnstown & Gloversville established on July 15, 1935, has brought substantial increases in both passenger traffic and revenues. This road operates both

steam and electric lines, its principal passenger-carrying route being its high-speed electric line between Gloversville, N. Y., and Schenectady. It also operates interurban bus lines as well as intra-city services in Gloversville and Amsterdam on which fares were also cut.

In August, 1935, the first full month that the reduced rate was in effect, the electric lines carried 84 per cent more passengers than in August, 1934, when the rate was three cents per mile. The accompanying revenue increase amounted to 10.3 per cent. By November, 1935, the continuing increase in the number of passengers carried had brought the total for that month to 99.3 per cent above November, 1934, with a comparable revenue increase of 20.9 per cent.

The fares on intra-city buses were at the same time cut from 10 cents, 3 tokens for 25 cents, to 5 cents, with the result that in November, 1935, about 59 per cent more passengers were carried than in November, 1934. The comparable revenue increase was 2.3 per cent.

### Carriers Will Keep Pace With Heavy Industries

(Continued from page 155)

mirable character of its personnel, the commission, in administering the elaborate system of laws enacted by Congress, has built up a regulatory code which is poorly adapted to the needs of modern business. Created originally to see that rates are neither unreasonable nor unjustly discriminatory, under the urge of Congressional mandate it has established precedents and settled policies which ignore the natural laws of commercial growth. Why should not the railroads and their patrons be free to make sensible contracts for the handling of traffic on a basis which would be fair and flexible? Along this line, our English cousins have set us a good example of what may be accomplished by applying ordinary business judgment to the problem of transportation.

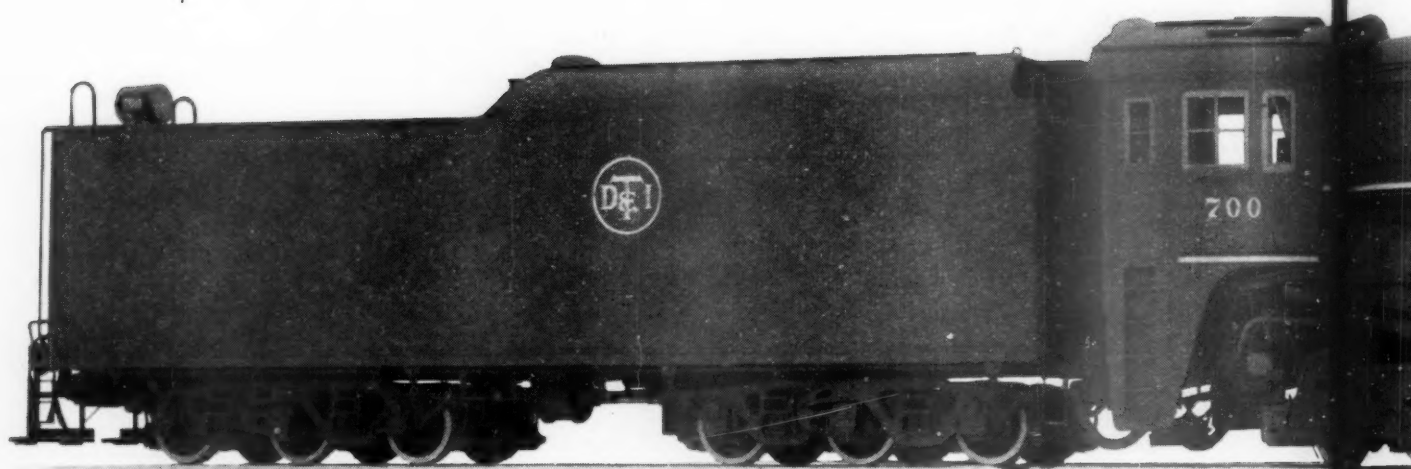
"Then, too, in our mistaken zeal for adherence to the principle of enforced competition, we have written into the law a purely artificial plan for railroad consolidations with the injunction that competi-



Outdoor Display Advertising the Fonda, Johnstown & Gloversville's One-Cent-Per-Mile Fares

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# NEW HEAVY POWER FOR THE

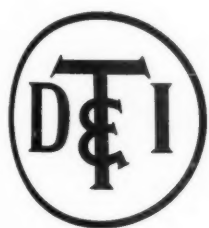
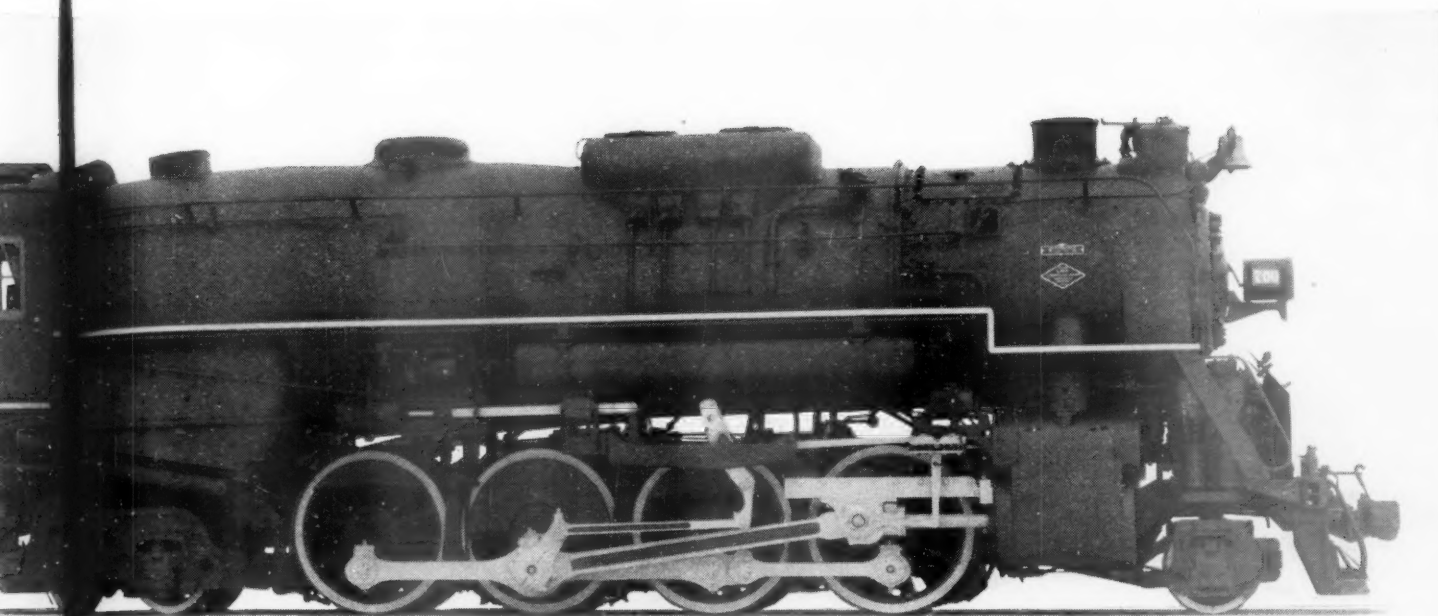


WEIGHTS IN WORKING ORDER, POUNDS				
On Drivers	Eng. Truck	Trailer Truck	Total Engine	Tender Loaded
248,600	53,900	109,000	411,500	361,370
WHEEL BASE			TRACTION EFFORT	
Driving	Engine	Eng. & Tender	63,250 lbs. at 85% cut-off	
16' 9"	39' 3"	86' 1 1/4"		
BOILER		CYLINDERS		DRIVING WHEEL
Diameter	Pressure	Diameter	Stroke	Diameter
88"	250 lbs.	25"	30"	63"



## LIMA

# DETROIT, TOLEDO AND IRONTON



Delivery was completed by Lima Locomotive Works, Incorporated, on December 31, 1935 of four 2-8-4 Type Heavy Freight locomotives to the Detroit, Toledo and Ironton Railroad.

This power is designed to meet the requirement of heavy freight service.

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**LOCOMOTIVE WORKS, INCORPORATED**  
**LIMA** **OHIO**



tion and the existing channels of trade and commerce must be preserved. Such a policy simply seeks to put new wine into old wine skins with results that can not be satisfactory. In these latter years, we have been regaled with the unique spectacle of having the government set up elaborate machinery for bringing about coordinations and abolishing competitive wastes and in the same statute providing that under no circumstances shall there be any substantial savings at the expense of labor. Obviously the only fruitful source of economy lies in reducing the cost of production through the employment of fewer machines, and this means the employment of fewer men."

Judge Fletcher also included some comments on the recent trip of the motor caravan between Chicago and Los Angeles operated by the Keeshin Transcontinental Freight Lines, saying:

"Here is a caravan of five trucks transporting 90,000 pounds of freight—45 tons. Doubtless the tonnage was merchandise which does not load heavily, so that we may safely assume that the five trucks carried the equivalent of two well loaded freight cars. It was necessary to employ 13 men to drive the trucks and the attending sleeping van. The time was four days, and there was obviously no rest for the drivers except what they obtained in the 'bunk-wagon.' A transcontinental freight train would have made the trip in just as good time, or perhaps a little better, employing five men and handling at least 25 times as much tonnage. It is certain that the rates of the trucks were not greater than rail rates; to say the least certainly the cost of the fuel used by the train was not greater per unit of load transported than the cost of gasoline used by the fleet of trucks, upon the same basis of unit cost. How is it possible for the trucks, then, to compete with the train with its far greater capacity per man employed for the work?"

"In part the answer may be found in the absence of conditions as to wages and hours of labor imposed upon the rail carriers from which the trucks are as yet free. Just what may happen to this element of cost when the Interstate Commerce Commission promulgates its rules as to hours of service and safety regulations no one can as yet predict. But it is obvious that the real explanation of the ability to compete lies not in the lower labor cost per man but in the fact that this motor-driven train of five trucks is furnished a highway at public expense while the rails must pay out 27 cents of every dollar taken in to provide and maintain their own highway. If we add to this about eight cents out of every dollar of revenue to cover taxes paid by the railroads toward the support of government maintenance of schools and all publicly sustained activities, we see at a glance where go 35 cents out of every dollar of revenue. I have no means of knowing just how much my friend, Mr. Keeshin, pays in gasoline taxes, license taxes and the like for the privilege of operating his 1,400 trucks over the highways paid for from tax funds, but we do know that the operators of commercial motor cars pay less than 10 cents out of every dollar of revenue for general taxes and the right to use the public roads. Upon so large an operation as that de-

scribed the probabilities are that the outgo was not more than five cents for highway and general governmental costs. In other words if the 90,000 pounds were transported by rail or motor for, say, \$500 the motor operation would have \$475 to apply to transportation costs and return on investment in equipment, while the railroad would salvage only \$325 for those purposes. It is altogether unlikely that these advantages will continue indefinitely. Motor transport in interstate commerce will soon be under regulation as to rates, service, hours of labor, and measures connected with safety. It hardly seems possible that the ordinary user of the highway will view with complacency the operation of these huge freight caravans in increasing numbers and size and at speeds competitive with railroad freight trains, to the discomfiture of the average taxpayer by whose toil and sacrifice the highway was provided."

## Construction

**LEHIGH VALLEY.**—The elimination of the Dingens street crossing of this road in Buffalo, N. Y., has been directed by the New York Public Service Commission. This is to be accomplished by placing the highway below the elevated grade of the railroad at an estimated cost of about \$220,000.

**NEW YORK CENTRAL.**—This road is asking for bids for work on its West Side improvements from Seventy-ninth street to Eighty-second street, New York City.

**NEW YORK CENTRAL.**—The New York Public Service Commission has approved plans, specifications, and an estimate of cost of \$139,200 for the elimination of the Howard road crossing of this road in Gates, N. Y. The crossing is located about two and one-half miles east of Coldwater station and is also known as Hinchey crossing.

**SOUTHERN PACIFIC LINES IN TEXAS & LOUISIANA.**—This company has undertaken a number of line changes, totaling 13 miles in length, on its main line between San Antonio, Tex., and El Paso. Of this total, 6.25 miles is involved in one line change between Malvado and Thurston, while the balance comprises three projects in Sanderson Canyon, east of Sanderson. The contract for the grading on the line change between Malvado and Thurston, involving approximately 180,000 cu. yd. of material in embankment, has been awarded to Gifford-Hill & Company, Inc., Dallas, Tex. The same company has also been awarded a contract for the grading on a four-mile line change near Feodora, east of Sanderson, involving about 40,000 cu. yd. of material in excavation. The grading on other line changes, aggregating 2.2 miles in length, is being done by the W. J. Harris Contracting Company, Houston, the yardage involved amounting to about 37,000 cu. yd. All track work and the construction of concrete substructures and steel superstructures so far undertaken has been done by company forces.

## Equipment and Supplies

### FREIGHT CARS

**THE WESTERN PACIFIC** is inquiring for 100 ballast cars of 50 tons capacity.

**THE WABASH** is asking for prices for the repair of 300 hopper coal cars.

**THE BANGOR & AROOSTOOK** has ordered 50 rack cars of 50 tons' capacity from the Magor Car Corporation. Inquiry for this equipment was reported in the *Railway Age* of January 4.

### IRON AND STEEL

**THE SOUTHERN PACIFIC** has ordered 40,769 tons of rail and 10,000 tons of track accessories.

**THE CHICAGO & NORTH WESTERN** is inquiring for 300 tons of structural steel for grade separation work at Kenosha, Wis.

**THE NEW YORK CENTRAL** has received bids for 280 tons of steel for a three-span through plate girder bridge at Carmen, N. Y., and will receive bids on January 21 for 230 tons of steel for a bridge at Newark, N. Y.

**THE NEW YORK CENTRAL** will receive bids until 12 o'clock noon, January 29, at the office of C. S. White, general purchasing agent, New York, for its requirements until June 30, of about 35,000 tons of steel rail and maintenance of way materials.

**THE ILLINOIS CENTRAL** has ordered 7600 tons of rail, placing 3000 tons with the Tennessee Coal, Iron & Railroad Company and 2300 tons each with the Carnegie-Illinois Steel Company and Inland Steel Company.

### SIGNALING

#### Indiana Crossing-Protection Plans

Plans for installing 50 flasher light signals at highway crossings in Indiana at an estimated cost of \$120,000 have been completed and bids on the material will be received during the next few days. Installations will be made by the railroad companies under an agreement with the highway commission.

### AIR CONDITIONING

**THE WAUKESHA MOTOR COMPANY**, Waukesha, Wis., has received orders for air-conditioning equipment as follows:

Chicago & North Western.....	28 ice engines
Illinois Central .....	1 "
Missouri Pacific .....	1 "
Texas & Pacific .....	1 "

### MISCELLANEOUS

**CENTRAL OF GEORGIA.**—This road has given a contract involving about \$25,000 to the Link-Belt Company, for elevating and distributing machinery for handling nitrate of soda at Savannah, Ga.

*Continued on next left-hand page*

# THE SUPERHEATER COMPANY

NEW YORK



CHICAGO

## ELESCO CINDER SHIELDS

PROLONG THE LIFE OF  
SUPERHEATER UNITS

STANDARD EQUIPMENT ON ELESCO NEW AND  
RE-MANUFACTURED SUPERHEATER UNITS

SEND FOR DESCRIPTIVE LIST



NEW YORK  
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MONTREAL  
The Superheater Co., Ltd.  
Dominion Square Bldg.

CHICAGO  
Peoples Gas Bldg.

REPRESENTATIVE OF AMERICAN THROTTLE COMPANY, INC.

## Supply Trade

**Charles G. Durfee**, manager, systems department of the **Pyrene Manufacturing Company**, Newark, N. J., has been appointed assistant to **Edward G. Weed**, vice-president in charge of sales.

**David S. Wright**, of the department of inspection and metallurgy of the Indiana Harbor works, Indiana, of the **Inland Steel Company** has been transferred to the sales department with headquarters at St. Paul, Minn.

At a special meeting of the board of directors of the **Timken Roller Bearing Company**, Canton, Ohio, on January 11, **R. C. Brower**, secretary-treasurer of the company, was elected director to fill the vacancy created by the death of **J. G. Obermier**.

**Howard S. Johnson**, who has been vice-president of the **American Hoist & Derrick Company**, St. Paul, Minn., for a number of years, retired from active service with this company and his place on the board of directors has been filled by **Rolf E. Ljungkull**, chief engineer of the company effective January 1.

**LeRoy Kramer**, who has been elected first vice-president of the **General American Transportation Corporation**, Chicago, was born in Wichita, Kan., on August 19, 1876, and was admitted to the Kansas bar in 1897. In the following year he entered the operating department of the St. Louis-San Francisco, later advancing to superintendent and assistant to vice-president, which latter position he held until 1912. In that year he was appointed assistant to the president of the Pullman Company, which position he held until 1915, when he was promoted to vice-



LeRoy Kramer

president. In 1918, he became federal manager of the St. Louis-San Francisco and the Missouri-Kansas-Texas under the United States Railroad Administration and in 1919, vice-president of the Willys-Overland Company, which position he held until 1921. In the latter year he became vice-president of the Symington Company and in 1924, was elected vice-president and director of the General American Tank Car Company, now the General American

Transportation Corporation, which position he has held until his recent election as first vice-president.

**Robert R. Dunn**, who has been elected vice-president, was born in Toronto, Ont., on July 18, 1891, and after graduating from Chicago Kent Law School entered the employ of Hiner, Bunch & Latimer in 1908. In 1917, he enlisted in the United



Robert R. Dunn

States Army, serving as a first lieutenant in air service. In 1919, he entered the employ of the General American Tank Car Corporation as a time clerk and after working in various departments was appointed plant auditor in 1921. He held this position until 1926, when he was appointed vice-president and treasurer of the Quaker City Tank Line, with headquarters at St. Louis, Mo., which position he held until 1931, when he was elected vice-president of the General American Transportation System at Chicago. In the same year he was appointed general office manager and assistant to the vice-president of the General American Transportation Corporation, the position he was holding at the time of his recent promotion.

## OBITUARY

**Harry L. Horning**, president and founder of the Waukesha Motor Company, Waukesha, Wisc., died at Battle Creek, Mich., on January 4.

**William J. Piersen**, western sales manager of the Adams & Westlake Company, Chicago, died at Evanston, Ill., on January 12, following several months illness.

**J. Alfred Dixon**, vice-president of the Safety Car Heating & Lighting Company and president of the Pintsch Compressing Company, New York, died on January 13 in the Orange Memorial Hospital, Orange, N. J., after a brief illness, at the age of 68.

LAST YEAR'S SHIPMENTS of railroad locomotives, as reported by the country's principal manufacturing plants to the U. S. Department of Commerce, totaled 138 locomotives as compared with 125 in 1934 and 26 in 1933. The 1935 total included 123 for domestic service and 15 for export; of the former, 33 were steam and 90 of other types.

## Financial

**AKRON, CANTON & YOUNGSTOWN.—Additional Trustee.**—The Interstate Commerce Commission has ratified the appointment of William L. Day as an additional trustee in bankruptcy of the properties of the A. C. & Y. and the Northern Ohio.

**BELLEVUE & CASCADE.—Abandonment.**—The Interstate Commerce Commission has authorized this company to abandon as to interstate and foreign commerce its narrow-gauge line extending from Bellevue, Iowa, to Cascade, 35.7 miles.

**CHICAGO & EASTERN ILLINOIS.—Reorganization.**—Referring to the proposals for the reorganization of the C. & E. I., Jesse H. Jones, chairman of the Reconstruction Finance Corporation, on January 14 advised Kenneth D. Steere, chairman of the board, that subject to prior approval by the Interstate Commerce Commission and approval by its legal division the R. F. C. will buy or acquire from the reorganized company (1) \$2,736,000 of its new first mortgage bonds to refund the outstanding 6 per cent consolidated bonds and (2) an additional amount of new bonds, in satisfaction of the existing claim of the corporation, equal to the amount of such claim and interest at 4 per cent. If the 5 per cent Evansville Belt bonds can be paid off it will purchase an additional amount of new bonds equal to the amount of the Evansville Belt bonds paid off.

The new first mortgage bonds are to carry interest at 4 per cent, mature in ten years, and be limited to \$15,000,000. It is understood that the Railroad Credit Corporation will be asked to take bonds of the same issue in discharge of its claim, the amount, however, to be reduced by the sum received for \$550,000 of bridge bonds, \$132,000 Fruit Growers Express stock and the distributive share of the railway company in the assets of the Railroad Credit Corporation; the remainder of new first mortgage bonds to be issuable either for the purpose of refunding the outstanding trustee's certificates and 5 per cent Evansville Belt bonds (not paid off at the time of the reorganization) or against property additions. The new bonds are to be callable at 103 during the first five years, at 102 during the next three years, and at 101 during the remaining two years. The income of the reorganized company available for fixed charges is to be distributed as follows:

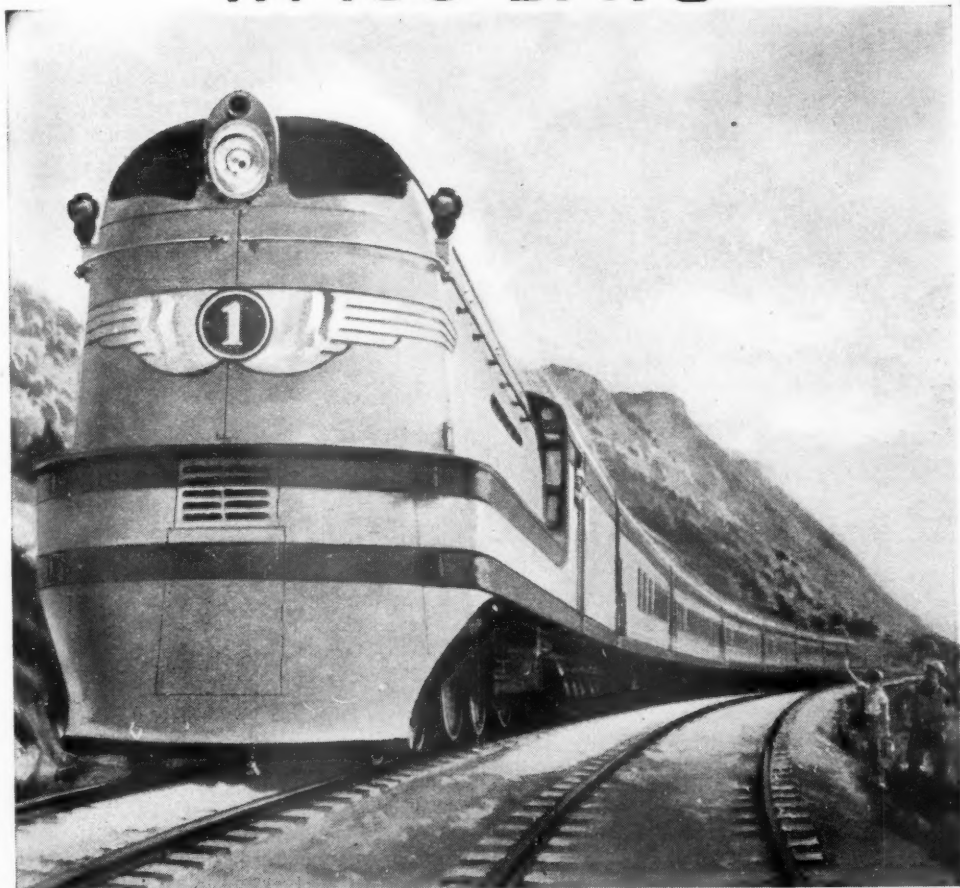
- (a) To the payment of interest on the new first mortgage bonds;
- (b) To the creation of an additions and betterments fund amounting to not in excess of 2 per cent of the gross annually, but in any event not in excess of \$500,000 at any time unexpended in the fund;
- (c) To the creation of a non-cumulative sinking fund for the new first mortgage bonds amounting to 1 per cent per annum of the bonds of said issue, the bonds purchased to be kept alive in the sinking fund and to carry interest;
- (d) To the payment of interest on the new 5 per cent non-cumulative convertible income bonds, issuable in exchange in part

Continued on next left-hand page



# 100,000 *Paying Passengers* IN 160 DAYS

# ALCO



*"Hiawatha" is hauled by a colorful streamlined, high-powered, oil-burning, steam locomotive built by the American Locomotive Company—the first modern steam locomotive to be built in the United States in which speed alone was the governing factor.*

THE outstanding development in rail-transportation during 1935 was the positive demonstration that the steam locomotive, properly designed and modernized, could meet and out-perform outside competition in this new and highly publicized restimulation of public interest in railway passenger traffic. . . "The Hiawatha" is the 6-hour 30-minute train of the Chicago, Milwaukee, St. Paul and Pacific Railroad, operating between Chicago, Milwaukee and St. Paul, a distance of 410 miles. The locomotive guaranteed originally to handle six cars is now hauling eight; and with an additional train stop the locomotive keeps right on making the original exacting schedule with ease. . . The train was placed in operation on May 29th, 1935. On November 4th, 160 days later, it celebrated the handling of its 100,000th paying passenger. During the two months, July and August, 35,376 passengers were handled, an average of 290 per trip; the average revenue per trip was \$1,546.00, and per passenger was \$5.33. In these two months this train operated at a net profit of \$127,296.00. . . The "Hiawatha" has conclusively demonstrated that to date there is no other form of motive power in existence, or as yet envisioned, which for anything like an equal capital expenditure will produce an equal return.

**AMERICAN LOCOMOTIVE COMPANY**

**30 CHURCH STREET NEW YORK N.Y.**

for the outstanding general mortgage bonds of the railway company;

(e) To the creation of a non-cumulative sinking fund for the income bonds above described, amounting in each year to the difference between \$200,000 and the amount paid into the sinking fund for the new first mortgage bonds.

As long as R. F. C. holds any of the new first mortgage bonds, it agrees to sell them to the sinking fund at the principal amount and accrued interest. The reorganized railway company will undertake to reimburse it for any expense or discount it may be put to in selling the new bonds purchased by it up to  $2\frac{1}{2}$  per cent of the amount. This offer is further conditioned upon a voting trust being created for the voting stock of the reorganized company to run ten years and to have three voting trustees, one named by the R. F. C., who shall have the right to approve 3 directors out of 13; one named by the holders of the new income bonds, who shall have the right to approve 5 directors out of 13, and one named by the old stockholders, who shall have the right to approve 5 directors out of 13.

**CHICAGO & NORTH WESTERN.—Reorganization.**—This company, it is announced, will file a plan of reorganization in the federal court at Chicago on February 27. The court has ruled that reorganization must be completed by April 1.

**CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Equipment Trust Certificates.**—H. A. Scandrett, one of the trustees, has been in correspondence with the Reconstruction Finance Corporation regarding a proposal for the purchase by the R.F.C. of a total of \$12,000,000 of equipment trust certificates from time to time for new equipment, the certificates to cover 75 or 80 per cent of the cost.

**COLORADO & SOUTHERN.—Abandonment.**—The Interstate Commerce Commission has authorized the Railway Labor Executives' Association to intervene in opposition to this company's application for authority to abandon part of its branch line between Denver, Colo., and Leadville.

**COPPER RANGE.—Proposed Reorganization Plan.**—The Bureau of Finance of the Interstate Commerce Commission has submitted a proposed report recommending modifications in a plan of reorganization submitted by the company which contemplated the exchange of its present outstanding first mortgage bonds for a like amount of new first-mortgage income bonds. The record does not support a finding, the report says, that the plan as submitted is financially advisable or compatible with the public interest, and the bureau expresses the opinion that the best interests of the debtor's bondholders and of the debtor would be served by a reorganization providing for the exchange of the existing bonds for \$2,280,000 of 5 per cent non-cumulative preferred stock. The plan also provides for an issue of \$1,000,000 of common stock.

**GREAT NORTHERN.—Four Per Cent Bond Issue.**—Terms on which the Reconstruction Finance Corporation agrees to purchase any unsold portion of an issue of

\$100,000,000 of ten-year 4 per cent bonds, to be used in meeting the maturity of \$105,850,000 of 7 per cent bonds on July 1, were arranged at a conference between President W. P. Kenney of the Great Northern and Jesse H. Jones, chairman of the R.F.C. at Washington on January 14, subject to approval of the Interstate Commerce Commission and the company's board of directors. The bonds are to be offered first to stockholders, to holders of the 7 per cent bonds, and to the public. The R.F.C. offer came after bankers had proposed an interest rate of 5 per cent and an underwriting charge of 1 per cent, and, according to Mr. Jones, after he had sought to prevail upon them to agree to a rate of  $4\frac{1}{2}$  per cent and a charge of  $\frac{1}{2}$  per cent, the R.F.C. agreeing to buy up to one-half of the issue if not taken by stockholders and private investors. In a letter to Mr. Kenney, Mr. Jones stated the conditions would be satisfactory to the corporation, providing for two series of bonds, one convertible into stock at 40 and the other convertible at 75. The bonds may be made to mature July 1, 1946, although dated prior to July 1, 1936, and carry a call price of 105 for five years, 103 for the next three years, and 101 for the next year. In lieu of a sinking fund the railroad company is to agree that if \$20,000,000 of the new bonds are not converted on or prior to maturity its present funded debt, plus any additional funded debt created with I.C.C. approval for additions and betterments, extensions and acquisitions of property, will be reduced \$20,000,000. The company is to notify the corporation 75 days after the plan has been approved by the commission of the amount of bonds it will be likely to call upon the R.F.C. to take.

**GULF MOBILE & NORTHERN.—Equipment Trust.**—The Interstate Commerce Commission has authorized this company to issue \$755,000 of definite equipment trust certificates to replace a like amount of temporary certificates now held by the Public Works Administration, the G. M. & N. waiving its privilege of redeeming the certificates at par before maturity.

**NEW YORK CENTRAL.—Abandonment.**—This company has applied to the Interstate Commerce Commission for authority to abandon its line from Tupper Lake Junction, N. Y., to Helena, 62.6 miles.

**NEW YORK, NEW HAVEN & HARTFORD.—Interest.**—The federal district court for Connecticut has authorized payment of interest on \$23,000,000 of underlying bonds of this company and on notes, totaling \$32,000,000, held by the Reconstruction Finance Corporation and the Railroad Credit Corporation.

**NORTHWESTERN PACIFIC.—Abandonment.**—The Interstate Commerce Commission has authorized this company to abandon a line extending from Christine, Calif., to Albion, 25.7 miles, together with a 1-mile branch from this line at Clearbrook.

**PENNSYLVANIA.—Bonds Sold by R.F.C.**—The Pennsylvania secured 4 per cent serial bonds purchased by the Reconstruction Finance Corporation from P.W.A. and offered by the corporation at public

auction on January 9 have been awarded to Halsey Stuart & Co., Inc., at \$1035.47 per thousand. The face amounts of the bonds was \$30,800,000 and the sale price \$31,892,000, a net premium of \$1,092,000. The purchasers of the bonds, and their associates, subsequently offered the bonds in the New York market to yield from 0.75 per cent to 3.88 per cent, according to maturity.

**PENNSYLVANIA.—Equipment Trust Certificates.**—The Interstate Commerce Commission has authorized this company to assume liability for \$18,420,000 of equipment trust  $2\frac{3}{4}$  per cent certificates, payable in installments from 1936 to 1950. The issue is authorized for sale to the First Boston Corporation and associates at 100-2813, making the interest cost to the railroad approximately 2.71 per cent.

**PHILADELPHIA & BEACH HAVEN.—Abandonment.**—This company has applied to the Interstate Commerce Commission for authority to abandon its entire line from Manahawken, N. J., to Beach Haven, 12.11 miles.

**ST. LOUIS-SAN FRANCISCO.—Lawsuit Dismissed.**—Two suits by the trustees of this company seeking to recover from Speyer & Co. and associated financial interests and E. N. Brown, chairman of the Frisco, more than \$11,500,000, alleged to have been lost by the road through the purchase of stock, were dismissed in the Supreme Court of New York County on January 9, the court finding that sufficient facts were not cited by the plaintiffs to sustain allegations of fraud and conspiracy.

**ST. LOUIS SOUTHWESTERN.—Gold Clause.**—The federal court of appeals in New York on January 14 decided that this company must pay coupons of its first terminal 5 per cent bonds due 1952 in Dutch guilders (the Netherlands being on the gold standard). The coupons and the bonds themselves carry a provision calling for payment in a fixed number of gold dollars in New York or in a fixed number of guilders in Amsterdam or a fixed number of monetary units of various other foreign countries, and suit for such payment was instituted by a Dutch investment trust. The decision on appeal affirmed the ruling of the federal district court in New York.

#### Average Prices of Stocks and of Bonds

	Jan. 14	Last week	Last year
Average price of 20 representative railway stocks..	45.01	43.49	33.45
Average price of 20 representative railway bonds..	78.63	77.74	75.90

#### Dividends Declared

Louisiana & Missouri.—7 Per Cent Guaranteed Preferred, \$3.50, payable February 1 to holders of record January 17.  
Louisville Henderson & St. Louis.—\$4.00, semi-annually; Preferred, \$2.50, semi-annually, both payable February 15 to holders of record February 1.  
North Carolina R. R. Co.—7 Per Cent Guaranteed, \$3.50, semi-annually, payable February 1 to holders of record January 20.  
Northern R. R. of New Hampshire.—\$1.50, quarterly, payable January 31 to holders of record January 14.  
Pennsylvania.—\$1.00, payable February 29 to holders of record January 22.  
Pittsburgh, Cincinnati, Chicago & St. Louis.—\$2.50, semi-annually, payable January 20 to holders of record January 10.  
West Jersey & Seashore.—\$1.50, semi-annually, payable July 1 to holders of record June 15.

Continued on next left-hand page



**will not  
disrupt schedules**  
*if locomotives are equipped  
with*

**UNION CAR SIGNALS**

Union Car Signal Co.  
NEW YORK      SAN FRANCISCO  
MONTREAL      ST. LOUIS  
CHICAGO



## Railway Officers

### EXECUTIVE

**H. P. Henshaw** has been appointed assistant to vice-president of the Chesapeake & Ohio, with headquarters at Huntington, W. Va., reporting to the vice-president-law. He assumes duties of the late **John C. Dice**, assistant vice-president.

### FINANCIAL, LEGAL AND ACCOUNTING

**C. C. Thorne**, assistant secretary of the Great Northern, has been appointed assistant secretary and cashier, with headquarters as before at St. Paul, Minn., to succeed **R. C. Patterson**, who has retired.

### OPERATING

**Jerry J. Liddy**, trainmaster of the Indianapolis Union, Indianapolis, Ind., has been appointed superintendent, and the position of trainmaster has been abolished. **B. C. Byers**, terminal manager, has retired, and the position of terminal manager has also been abolished. These changes became effective on January 1.

**M. L. McElheny**, whose appointment as general superintendent of the Central of New Jersey, the New York & Long Branch, the Wharton & Northern and the Mount Hope Mineral, with headquarters at Jersey City, N. J., was noted in the



Kaiden-Keystone

M. L. McElheny

*Railway Age* of January 11, entered the service of the Pennsylvania at Newcastle, Pa., in 1897. In October, 1902, he went with the Baltimore & Ohio as a train dispatcher at Pittsburgh, Pa., and then became assistant trainmaster and trainmaster on the Pittsburgh and Connellsville divisions of this road. In February, 1924, he was appointed superintendent of the Baltimore & Ohio New York terminals and the Staten Island Rapid Transit. Mr. McElheny was appointed superintendent of the Central division of the Central of New Jersey in February, 1934, the position he

held at the time of his recent appointment as general superintendent.

### TRAFFIC

**Samuel A. Townsend** has been appointed assistant freight traffic manager of the New York Central System, with headquarters at St. Louis, Mo., succeeding **J. W. Clark**, deceased.

**M. P. Eckman**, division freight and passenger agent on the Missouri Pacific at Hutchinson, Kan., has been promoted to assistant general freight agent, with headquarters at Omaha, Neb., succeeding **G. F. Painter**, who has been transferred.

**H. C. Holzbach**, auditor of freight accounts of the Chicago, Burlington & Quincy, whose appointment as general freight agent, with headquarters at Den-



H. C. Holzbach

ver, Colo., was noted in the *Railway Age* of January 11, has been connected with the Burlington for more than 30 years. He was born on June 10, 1888, and entered the service of the Burlington on October 15, 1905, serving first as an office boy and then in various clerical capacities until August 16, 1916, when he was appointed traveling auditor. On April 1, 1918, Mr. Holzbach was made assistant chief clerk to the auditor of freight accounts, being appointed chief clerk in the same department on January 1, 1924. Three years later he was made auditor of freight accounts, which position he was holding at the time of his recent appointment as general freight agent at Denver.

**L. C. Mahoney**, general freight agent on the Chicago, Burlington & Quincy, whose appointment as assistant freight traffic manager, with headquarters as before at Chicago, was announced in the *Railway Age* of January 11, has been connected with the Burlington for more than 29 years. He was born on April 10, 1876, and entered the service of the Burlington on November 1, 1906, as a clerk in the general freight department, later serving as chief clerk to the general freight agent and as chief clerk to the assistant freight traffic manager. On October 12, 1917, Mr. Mahoney was appointed assistant general freight agent, and on January 1, 1925, he was further promoted to general freight

agent, with headquarters at Chicago. He was holding the latter position at the time



Root Photo

L. C. Mahoney

of his recent appointment as assistant freight traffic manager.

**H. L. Ford**, general agent, freight department, of the Chicago, Burlington & Quincy at Denver, Colo., whose promotion to general freight agent in charge of solicitation, with headquarters at Chicago, was noted in the *Railway Age* of January 11, was born on May 30, 1894. He first entered the service of the Burlington and the Colorado & Southern (part of the Burlington System) in February, 1920, as assistant agricultural agent of these roads at Denver. On July 1, 1922, Mr. Ford was appointed agricultural agent for the two companies and five years later he was



Moffett

H. L. Ford

made agricultural development agent of the Burlington, with headquarters at Chicago. On July 1, 1934, he was sent to Denver as general agent, freight department, which position he was holding at the time of his recent appointment.

### OBITUARY

**Leon M. Jones**, who served as purchasing agent of the Norfolk Southern from 1913 until his retirement January 1, 1932, died at his home in Princess Anne County, near Norfolk, Va., on January 1, at the age of 66.